

DVR200/300 Series
Digital Video Recorders
User Manual

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Notice

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Environmental Protection

This product has been designed to comply with the environmental protection requirements. The storage, use, and disposal of this product must meet the applicable national laws and regulations.

Safety and Compliance Information

Conventions Used Symbol

The symbols in this chapter are shown in the following table. They are used to remind the reader of the safety precautions during equipment installation and maintenance.

Safety Symbol	Description
	Generic alarm symbol: To suggest a general safety concern.
	ESD protection symbol: To suggest electrostatic-sensitive equipment.
	Electric shock symbol: To suggest a danger of high voltage.

Safety Information



WARNING!

Installation and removal of the unit and its accessories must be carried out by qualified personnel. You must read all of the Safety Instructions supplied with your equipment before installation and operation.

Warnings:

- If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the camera yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)
- To reduce the risk of fire or electrical shock, do not expose this product to rain or moisture.

- This installation should be made by a qualified service person and should conform to all the local codes.
- Please install blackouts equipment into the power supply circuit for convenient supply interruption.
- Please make sure that the ceiling can support more than 50(N) Newton gravities if the camera is fixed to the ceiling.
- Make sure the power supply voltage is correct before using the camera.
- Do not drop the camera or subject it to physical shock.
- Do not touch sensor modules with fingers. If cleaning is necessary, use a clean cloth with a bit of ethanol and wipe it gently. If the camera will not be used for an extended period of time, put on the lens cap to protect the sensor from dirt.
- Do not aim the camera lens at the strong light such as sun or incandescent lamp. The strong light can cause fatal damage to the camera.
- The sensor may be burned out by a laser beam, so when any laser equipment is being used, make sure that the surface of the sensor not be exposed to the laser beam.
- To avoid heat accumulation, good ventilation is required for a proper operating environment.
- Keep out of water and any liquid.
- While shipping, the camera should be packed in its original packing.
- Improper use or replacement of the battery may result in hazard of explosion. Please use the manufacturer recommended battery type.



Caution: Fiber optic ports – optical safety.



Never look at the transmit laser while the power is on. Never look directly at the fiber ports and the fiber cable ends when they are powered on.

Caution: Use of controls or adjustments to the performance or procedures other than those specified herein may result in hazardous laser emissions.

Regulatory Compliance

FCC Part 15

This equipment has been tested and found to comply with the limits for digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This product complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.

2. This device must accept any interference received, including interference that may cause undesired operation.

LVD/EMC Directive



This product complies with the European Low Voltage Directive 2006/95/EC and EMC Directive 2004/108/EC.

WEEE Directive–2002/96/EC



The product this manual refers to is covered by the Waste Electrical & Electronic Equipment (WEEE) Directive and must be disposed of in a responsible manner.

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1 Before You Start

- Before you perform any man-machine interface operations, ensure that you have corresponding operation permissions. For details, refer to [User Configuration](#).
- The following figures are exemplary only and may vary, depending on the model.
- The parameters displayed in gray in the man-machine interface cannot be modified. For the specific parameters that are grayed out, see the man-machine interface.
- For devices of different models, the functions may be different, so refer to the actual device for its specific functions.

Front View, Indicators, and Buttons

Front View

DVR300-08E/16E/08S/16S-IN



DVR300-08L/16L-IN



DVR200 series



Indicators

As shown in the front view, the following table describes the indicators on the front panel. The indicator color may vary with the equipment model (blue or green).

Table 1-1 Status Indicators

Indicators	Color	Status	Description
 (Power indicator)	Red	Constantly on	Device powered on.
NET (network indicator)	Blue/Green	Constantly on	Network properly connected.
		Off	No network connection.
PWR (power indicator)	Blue/Green	Constantly on	Power connected.
		Off	No power.
IR (remote control indicator)	Blue/Green	Constantly on	Device is selected and can be remotely controlled.
		Blinking	Device is being verified.
		Off	Device is not selected and cannot be remotely controlled.
SHIFT (reuse button indicator)	Blue	Constantly on	The reuse button becomes a function key.
		Briefly on	A button is pressed and released.
		Off	The reuse button works in number or letter input mode.
		Briefly off	A button is pressed and released.
RUN (running indicator)	Blue/Green	Constantly on	Running normally.
		Blinking	Starting.
		Off	Shut down.
CODEC (codec indicator)	Blue/Green	Constantly on	Signal input without coding or decoding.
		Blinking	Being encoded or decoded.
		Off	No signal input or system shutdown.
ENC (Encode indicator)	Green	Blinking	Encoding.
HD (hard disk indicator)	Blue/Green	Constantly on	Running properly without data access.
		Blinking	Running properly with data access.
		Off	Hard disk is not installed or the system shuts down, or the indicator turns red.
	Red	Constantly on	Hard disk at fault.
		Blinking	Several hard disks at fault or array rebuilt.
HD ERR	Red	Constantly on	Hard disk at fault.

Indicators	Color	Status	Description
(hard disk fault)		Blinking	Array rebuilt.
		Off	Hard disk is not installed or the system shuts down, or all disks are working properly.
ALM (alarm indicator)	Red	Constantly on	Equipment alarms.
		Off	The system runs normally without alarms.
SLOT (Card indicator)	Green	Constantly on	Card in slot.
		Blinking	No card in slot.
LINK (External device indicator)	Green	Constantly on	Device connected.
		Blinking	Device unconnected.
ACT (Data transfer indicator)	Yellow	Blinking	Data is being transferred.

Panel buttons

The panel buttons may vary with the equipment model.

Item	Function and Description
JOG SHUTTLE Control	Turning the jog button clockwise is equivalent to pressing the down key; turning the button counterclockwise is equivalent to pressing the up key.
DIRECTION	///: Move between different menu items; shift the focus; in PTZ mode, move the PTZ up, down, left, or right after the PTZ tool bar is hidden. /: In playback mode, rewind or forward 30 seconds when the playback tool bar is hidden. /: In playback mode, rewind or forward at speed when the playback tool bar is hidden.
OK	- Confirm the operation; - In playback mode, play or pause when the playback tool bar is hidden.
USB interface	USB2.0 (limited to 1A) used for connection with an external USB mouse or storage device. Note: <i>Use another device to partition and format a USB storage device into FAT32 file system before use.</i>
POWER ON/OFF	- In Soft OFF mode, press the ON/OFF button to start the device. - In normal operation mode, press the ON/OFF button to turn off the device. Hold the ON/OFF button for at least 3 seconds to switch off the device.

Item		Function and Description
Function Buttons	Alphanumeric Buttons	- Used to enter a password, number, or Chinese or English characters. - The number key 0 can be used to select or clear check boxes in the list box. Note: Decimal point (.): Used to enter a Chinese symbol.
	SPACE	Used to enter a space in Chinese input mode.
	DEL	Used to remove characters on the left of the cursor.
	F1	Used to switch between focus areas on an interface.
	F2	- Used to switch between menu sub-tabs. - Used to capture images in the focus pane on the preview and playback interface (with playback toolbar hidden).
	EDIT	Used to switch between numbers, Chinese and English (upper/lower-case) characters.
	LOGIN/OUT	Log in or out the device.
	MENU	Used to access the main menu.
	RIGHTCLICK	Used to access the right-click context menu.
	TOOLBAR	Used to show or hide the PTZ or playback toolbar.
	SCREENS	In preview and playback mode, used to switch between different screens. Screens 3, 5 and 7 show videos in the corridor.
	MAIN/AUX.	Used to switch between man-machine screens in preview mode or on the first startup wizard interface. Note: In PTZ control mode, the button is used to switch between screens when the PTZ toolbar is shown.
	SEQUENCE	Used to start/stop polling switching in preview mode.
	BACKUP	Used to enter the video backup interface in preview mode.
	PLAYBACK	Used to enter the video playback interface and display the playback toolbar in preview mode.
	PTZ	Used to enter the PTZ control interface and display the PTZ toolbar in preview mode.
	REC	Used to manually start or stop storing images on a hard disk in preview mode.
	PRESET	Used to set the PTZ into the preset position in PTZ control mode when the PTZ toolbar is hidden.
	MUTE	Used to turn on/off the mute function.
	IRIS+/IRIS-	Used to adjust the PTZ camera aperture in PTZ control mode when the PTZ toolbar is hidden.

Item		Function and Description
	FOCUS+/ FOCUS-	Used to adjust the PTZ camera focus in PTZ control mode when the PTZ toolbar is hidden.
	ZOOM+/ ZOOM-	Used to adjust the PTZ camera zoom in PTZ control mode when the PTZ toolbar is hidden.
	ESC	Used to quit the current interface.
	SHIFT	Used to switch between reuse functions.

User Login



NOTE !

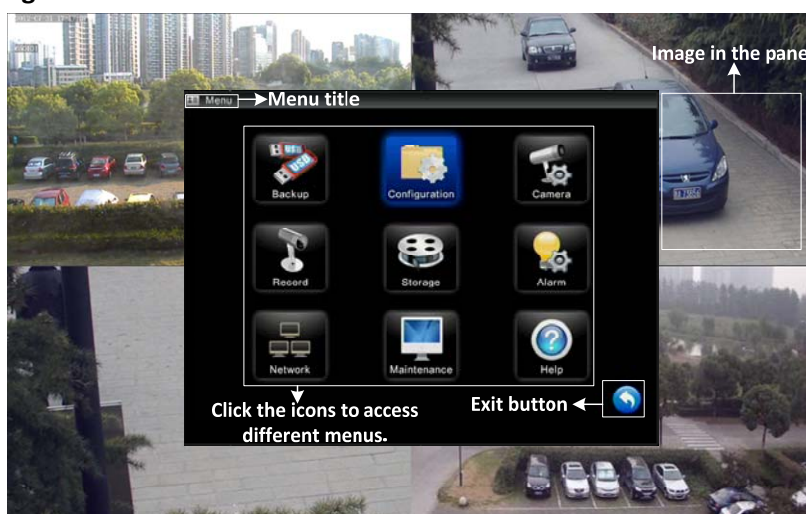
- When logging in to the man-machine interface for the first time, use the default username admin and the default password admin.
- Before performing service operations, ensure that you have corresponding operation permissions. For details about permission configuration, refer to [User Configuration](#).

1. Right-click anywhere in the preview interface and then choose Menu. The user login dialog box is displayed.
2. In the user login dialog box, enter the correct user name and password, and then click Login to log in to the device.

Man-Machine Interface

[Figure 1-1](#) shows an example of the man-machine interface after you log in with corresponding permissions. If you do not have the corresponding permissions, certain menus on the man-machine interface are displayed in gray and unavailable.

Figure 1-1 Man-Machine Interface



How to Operate the Man-Machine Interface

You can quickly configure the man-machine interface, so that the device enters the normal working status. For details, refer to [Initial Configuration](#).



NOTE !

- Unless otherwise stated, all device configuration and operations are performed by using the mouse by default in this manual. For details about how to use the mouse and the remote control, refer to [How to Operate the Mouse](#) and [How to Operate the Remote Control](#). The method for operating the buttons on the front panel is similar to the method for operating the remote control.
 - The signal receiving quality of the remote control is the best within a distance of 5 meters, the horizontal angle within the receiving sensitivity of the remote control ranges from -60° to $+60^{\circ}$, and the vertical angle within the receiving sensitivity of the remote control ranges from -30° to $+30^{\circ}$.
-

How to Operate the Remote Control

Functions of the buttons on the remote control

Figure 1-2 Functions of the Buttons on the Remote Control

Button	Function	Schematic Diagram
POWER ON/OFF	Power-on/-off switch.	
Device	Press this button. A device code check box is displayed. Enter the remote control ID of the device. After the check is successful, you can enable all buttons on the remote control. Note: <i>To disable the buttons on the remote control, press this button again after the check is successful and then select canceling the check.</i>	
Alphanumeric Buttons	- Switch to the corresponding channel in Live view mode. - Input numbers and characters in Edit mode. - In the Chinese input method, the numeral "0" can be used to represent a space.	
DEL	Used to remove characters on the left of the cursor.	
RIGHTCLICK	Used to access the right-click context menu	
SEQUENCE	Used to start/stop polling switching in preview mode	
PLAYBACK	Used to enter the video playback interface and display the playback toolbar in preview mode	
MENU	Used to turn on/off the mute function	
TOOLBAR	Used to show or hide the PTZ or playback toolbar	
DIRECTION	///: Move between different menu items; shift the focus; in PTZ mode, move the PTZ up, down, left, or right after the PTZ tool bar is hidden. /: In playback mode, rewind or forward 30 seconds when the playback tool bar is hidden. /: In playback mode, rewind or forward at speed when the playback tool bar is hidden.	
OK	- Confirm the operation; - In playback mode, play or pause when the playback tool bar is hidden.	
PTZ	Used to enter the PTZ control interface and display the PTZ toolbar in preview mode	
ESC	Used to quit the current interface	
IRIS+/IRIS-	In PTZ control state, you can adjust the aperture, focus, and zoom of the PTZ camera lens after hiding the PTZ toolbar.	
FOCUS+/FOCUS-		
ZOOM+/ZOOM-		

Button	Function	Schematic Diagram
F1	Used to switch between focus areas on an interface	
F2	- Used to switch between menu sub-tabs - Used to capture images in the focus pane on the preview and playback interface (with playback toolbar hidden)	
Full screen	In preview state, press this button to display the selected image on a full screen, or press it again to restore the image display.	
SCREENS	In preview and playback mode, used to switch between different screens. Screens 3, 5 and 7 show videos in the corridor.	
MAIN/AUX.	Reserved.	
MUTE	Turn audio on/off.	

How to operate the remote control

1. Before operating the remote control, ensure that its battery with sufficient energy has been correctly installed in the remote control.
2. Before operating the remote control, aim the infrared transmitting end of the remote control at the infrared receiving port of the device (indicated by an IR LED on the front panel of the device). Then perform operations on the remote control.

If operations cannot be performed on the remote control, perform the following step:

3. Press Device on the remote control, enter the remote control ID of the device, and then press OK. If the device can receive the command from the remote control, the IR LED turns green and now you can use the remote control to operate the device.



NOTE !

- 255 is a privileged device code for use during device code check. That is, if you enter 255 during the check, the check will be successful no matter whether the device code is matched.
- In soft powered-off state, press the **POWER ON/OFF** button on the remote control to start the device after the device passes the device code check.
- If the device cannot receive instructions from the remote control after multiple attempts, check whether the following problems exist: the positive and negative polarities of the battery are inversely connected; the battery is running out of energy; an obstacle exists between the infrared transmitting end of the remote control and the infrared receiving port of the device; a fluorescent lamp used nearby affects the remote control. If the problems do not exist but the device still cannot be operated, contact the local distributor.

How to Operate the Mouse

In this manual, it is assumed that users are accustomed to operating the mouse with their right hand.

Table 1-2 Mouse Operations

Name	Action	Description
Left button	Click	- Select or confirm an operation item. - Select digits, Chinese characters, symbols, or English letters in upper or lower case from an edit box to edit them.
	Double-click	- Switch between the single-division view and the multi-division view in preview or playback state. - Perform some operations on the toolbar. For example, double-click a certain item in a video list to play back this video.
	Hold and drag	- Draw or move a rectangular box. For example, set OSD or a mask area. - Hold the title of the toolbar to drag the toolbar.
Right button	Click	- Display a right-click menu. - Exit the electronic zoom-in state. - When there is a Cancel or Exit button on the current interface, you can right-click the button to exit the interface. - In the preview state or on the first interface of the power-on wizard, hold the right button of the mouse for at least 3 seconds and then release the right button to switch the displays screen of the man-machine interface. For details about the screen switching sequence, refer to Automatic Detection.
Roller	Roll upward	Scroll options upward in an upward/downward selection box, or scroll the interface upward on a scroll bar.
	Roll downward	Scroll options downward in an upward/downward selection box, or scroll the interface downward on a scroll bar.

2 Initial Configuration

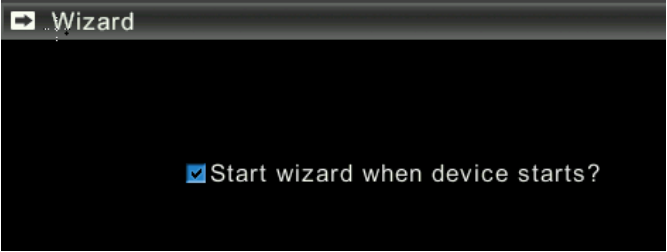
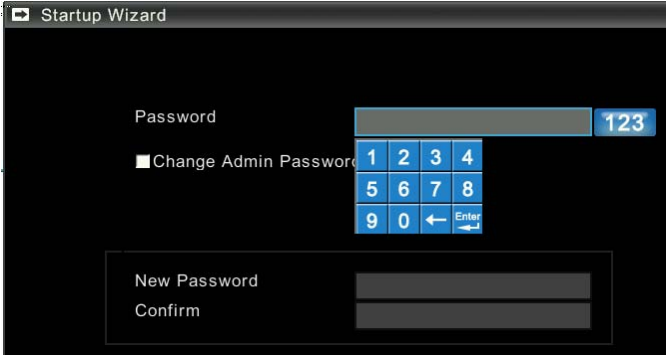
Before Power-On

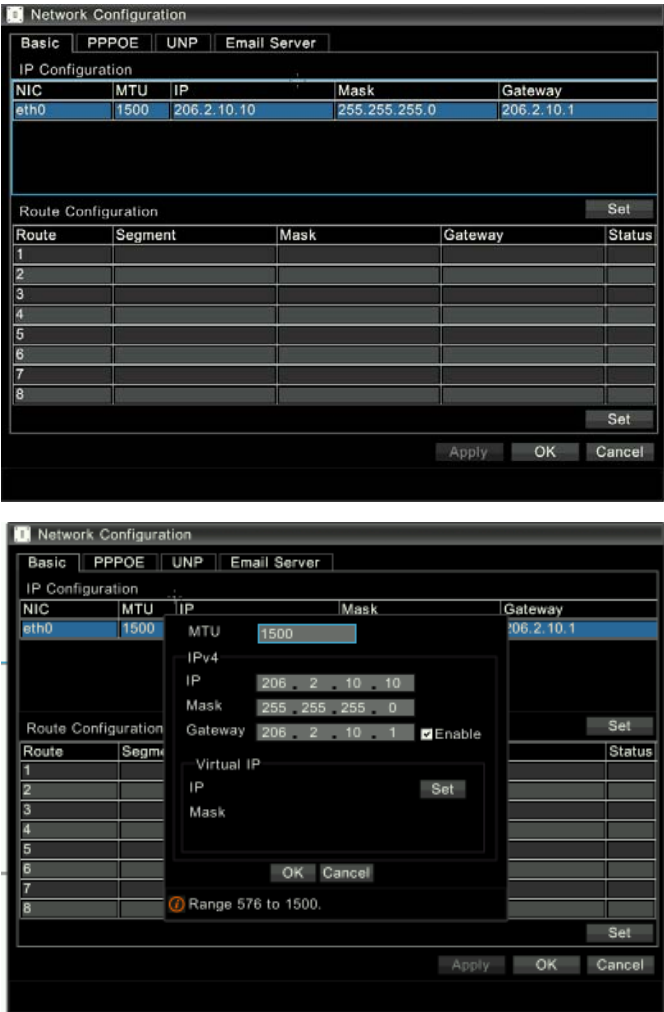
- Ensure that at least one monitor is normally connected to the video output interface on the rear panel of the device; otherwise, the man-machine interface is invisible. For details about the mode of displaying the man-machine interface through the video output interface, refer to [Man-Machine Interface Output](#).
- Ensure that the hard disk has been correctly installed. For details about how to install the hard disk, refer to the corresponding Quick Guide.

Power-on Wizard

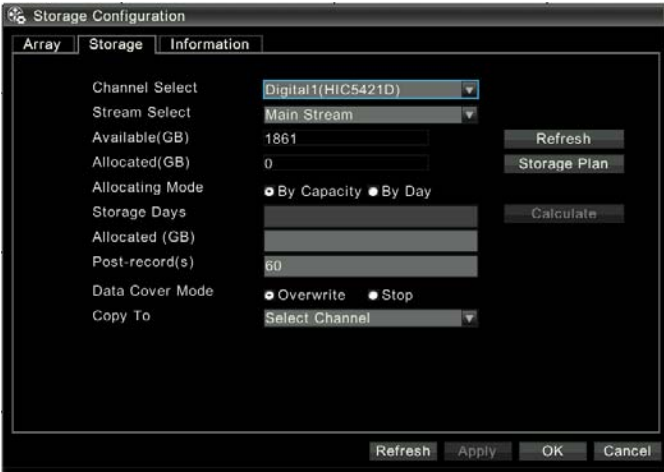
Start the device and wait patiently. When a startup progress bar appears on the monitor, you can enter the man-machine interface.

You can perform simple configuration according to the power-on wizard, so that the device works properly. If you do not want to perform quick configuration through the power-on wizard, you can directly skip the power-on wizard after starting the device, and then log in as the administrator **admin** and perform quick configuration according to steps (3) to (5).

Steps	Screenshot
1. Confirm whether to start the wizard during next power-on, and then click Next.  NOTE! <i>If you do not select the Start wizard when device starts checkbox, the power-on wizard configuration interface does not appear during next startup. To enable the function again, you need to set the power-on wizard. For details, refer to Basic Configuration.</i>	
2. Verify your permission. Enter the password (which is admin by default) of the user admin, and then click Next. The Configuration Wizard interface is displayed.	 

Steps	Screenshot
3. Configure network parameters. 1) Click Network. The Network Configuration interface is displayed. 2) On the Basic tab page, double-click the network interface card (NIC) to configure its IP address, subnet mask and default gateway. Keep the default settings of the rest network parameters unless otherwise stated. 3) Click OK after the configuration is complete. System services will be restarted during the configuration of the NIC eth0. After the services are restarted, the Configuration Wizard interface is returned.	 The top screenshot shows the 'Network Configuration' window with the 'Basic' tab selected. The 'IP Configuration' table is visible, showing the 'eth0' interface with an MTU of 1500, IP address 206.2.10.10, mask 255.255.255.0, and gateway 206.2.10.1. The 'Route Configuration' table is also visible, showing a list of routes. The bottom screenshot shows the 'Network Configuration' window with the 'Basic' tab selected. The 'IP Configuration' table is visible, showing the 'eth0' interface with an MTU of 1500, IP address 206.2.10.10, mask 255.255.255.0, and gateway 206.2.10.1. A 'Virtual IP' dialog box is open, showing the 'IP' field set to 206.2.10.10, the 'Mask' field set to 255.255.255.0, and the 'Gateway' field set to 206.2.10.1. The 'Enable' checkbox is checked. The 'Set' button is visible.

Steps	Screenshot
4. Configure system parameters. 1) Click Configuration. The System Configuration interface is displayed. 2) Click the Server tab, and select the management mode according to actual networking. Keep the default settings of the rest system parameters unless otherwise stated. 3) Click OK after the configuration is complete. If the management mode is changed, the device will be restarted.	
5. Configure storage parameters. Click Storage. The Storage Configuration interface is displayed. 1) Create an array. a. Click the Array tab. In the Build Array area, enter the array name, and select the array type and the idle slot. b. Click Create. The created array appears in an array list.	

Steps	Screenshot
2) Virtualize the array. Before an array is put into use, it needs to be virtualized. Specifically, select the corresponding array in the Virtualization Array area, and then click Virtualize.  NOTE! <i>It takes a while to virtualize an array. Wait patiently. After the virtualization is complete, the Virtualized column of the array is displayed as Yes in the array list.</i>	 The screenshot shows the 'Storage Configuration' window with the 'Array' tab selected. The 'Virtualization Array' section is active, showing 'ARRAY1' selected. The 'Virtualized' column in the array list is 'NO'.
3) Configure storage resources. Click the Storage tab, and configure storage resource parameters. For details about important parameters, see Table 2-1.	 The screenshot shows the 'Storage Configuration' window with the 'Storage' tab selected. The 'Storage' tab is active, showing various storage resource parameters like Channel Select, Stream Select, Available(GB), Allocated(GB), Allocating Mode, Storage Days, Allocated (GB), Post-record(s), Data Cover Mode, and Copy To.

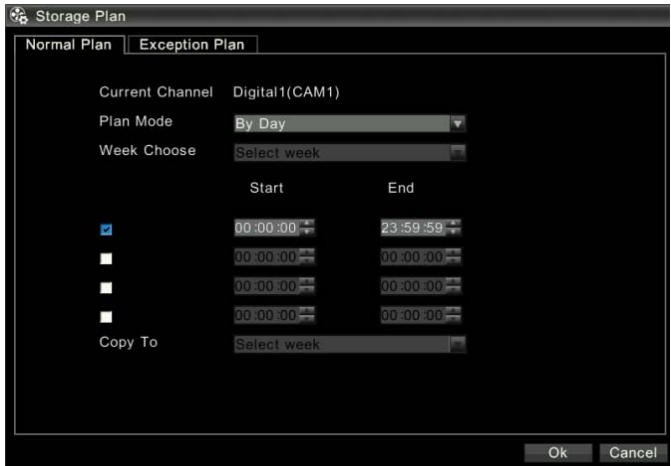
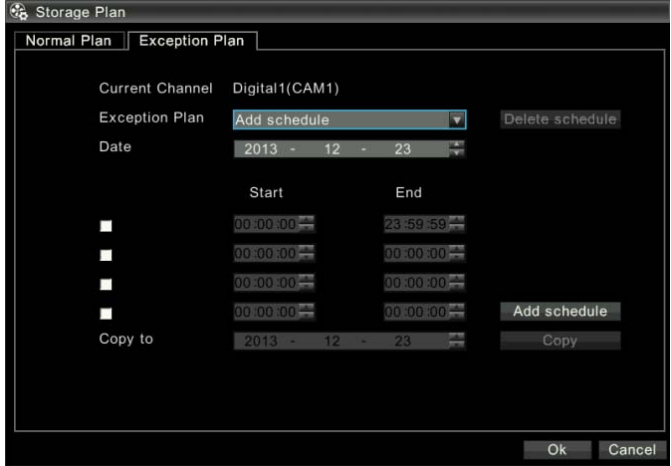
Steps	Screenshot
4) Configure storage plans. - On the Storage tab page, click Storage Plan to configure a normal storage plan and an exception storage plan. For details about important parameters, see Table 2-1. - Click OK after the configuration is complete. The Storage interface is returned. - Click OK. The Configuration Wizard interface is returned.  NOTE! - On the day specified in the exception plan, the storage will be executed only in the specified exception time segments. On the other days, the normal plan will be executed. - The time segments in the storage plan cannot overlap or include each other.	 
6. After configuring all parameters, click Finish to save the configuration. Then you can perform various service operations.	-

Table 2-1 Description of Important Parameters Involved in Quick Configuration

Configuration Type	Parameter	Description
Server configuration	Management Mode	- Server: The device is centrally managed by a central server. - Stand-alone: The device is not centrally managed. Note: If Management Mode is set to Server for the device and when the NTP server time synchronization is disabled on the device, the device synchronizes to the time of the central server.
	Server IP	If Management Mode is set to Server , the value of this parameter should be consistent with the IP address of the central server in actual networking.

Configuration Type	Parameter	Description
	Protocol	The value of this parameter should be consistent with the inter-domain interconnection communications protocol set on the central server in actual networking.
Storage configuration	Allocating Mode	- By Capacity: The storage resource capacity of the camera is allocated directly according to the allocated capacity. - By Day: The allocated capacity is re-calculated and the storage resource capacity of the camera is allocated according to the value of Storage Days. Note: If this parameter is set to By Day, you need to configure a storage plan for the camera, so that the camera performs storage according to the plan.
	Storage Days	The number of days for which data will be kept Note: Click Calculate. The system automatically calculates the required storage resource capacity and at the same time displays detailed storage distribution in a visual chart of storage configuration.
	Allocated (GB)	Storage resource capacity allocated to the camera or expanded for the camera Note: Capacity expansion is applicable only to cameras to which storage resources have been allocated.
	Post-record (s)	Duration of alarm-triggered recording Note: This parameter is used for alarm-triggered recording. For details, refer to Alarm-Triggered Storage.
	Data Cover Mode	- Overwrite: When the storage resources allocated to the camera are full, data is overwritten from the beginning during storage. - Stop: When the storage resources allocated to the camera are full, data is no longer stored.

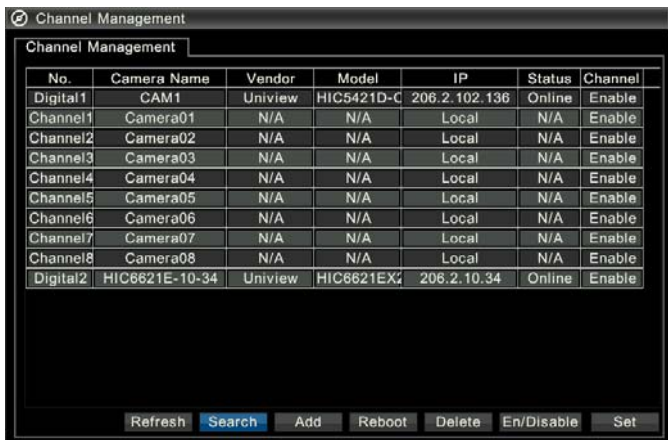
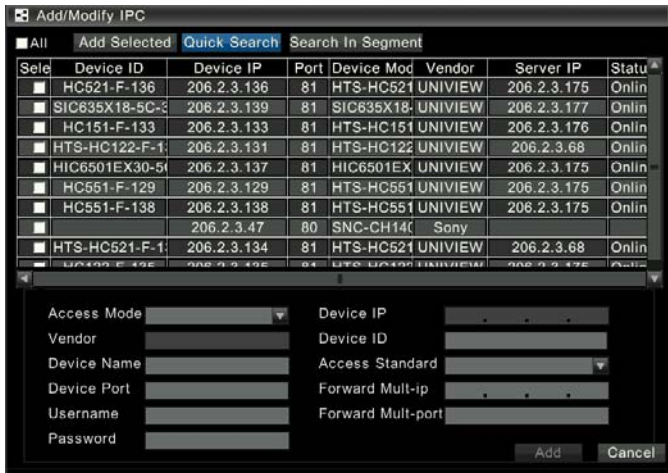
If you want to perform service operations for digital channels after finishing the configuration according to the power-on wizard, you also need to add digital channels such as IPCs.

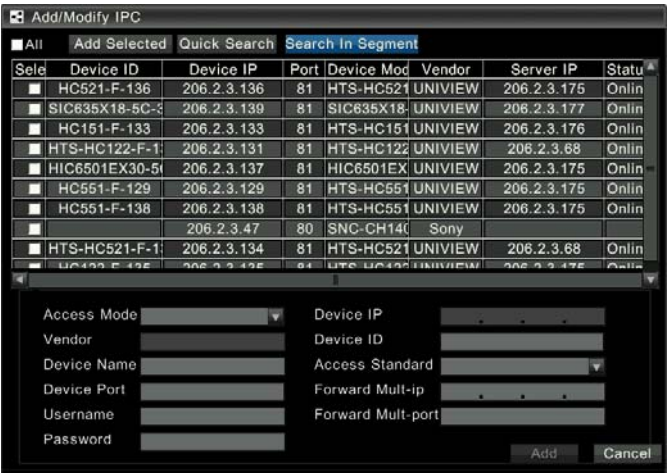
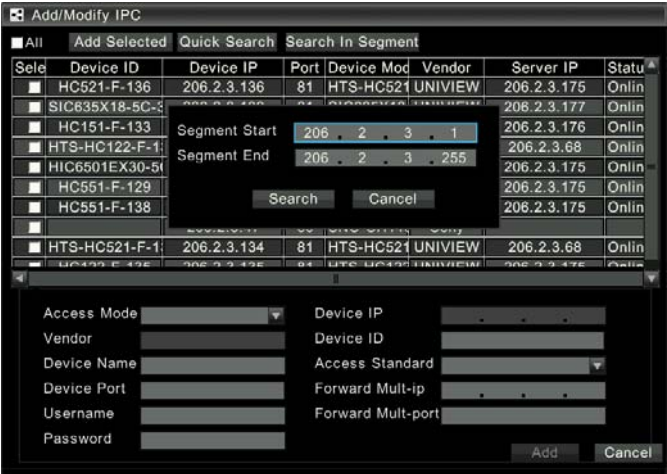
Adding IPCs

Only the user **admin** can manage IPCs. Before managing an IPC, ensure that the following conditions are ready:

- The IPC is running properly, and network communications are normal.
- The resolution of the IPC meets the following two conditions: width ≤ 1920 ; height ≤ 1088 .

Adding IPCs in the Manner of Search

Steps	Screenshot
- Right-click anywhere in the preview interface, and then choose Menu > Camera. The video channel interface is displayed. - Search for IPCs. Click Search. The IPC search interface is displayed. When you access the IPC search interface, a quick search is performed by default.	 The screenshot shows the 'Channel Management' window. It contains a table with columns: No., Camera Name, Vendor, Model, IP, Status, and Channel. The table lists channels from Digital1 to Channel8, with Camera01 to Camera08. Channel8 is Digital2, HIC6621E-10-34, Uniview, HIC6621EX, 206.2.10.34, Online, and Enable. Below the table are buttons: Refresh, Search, Add, Reboot, Delete, En/Disable, and Set.
Click Quick Search. The system automatically searches for IPCs on the network.	 The screenshot shows the 'Add/Modify IPC' window. It contains a table with columns: Sele, Device ID, Device IP, Port, Device Mod, Vendor, Server IP, and Status. The table lists various IPCs like HC521-F-136, SIC635X18-5C-3, etc. Below the table are configuration fields: Access Mode, Vendor, Device Name, Device Port, Username, Password, Device IP, Device ID, Access Standard, Forward Multi-ip, and Forward Multi-port. There are 'Add' and 'Cancel' buttons at the bottom right.

Steps	Screenshot
- Click Search In Segment to search for IPCs in a specified segment.  NOTE! - In the IPC list, <i>Server IP</i> indicates the IP address of a server to which an IPC is currently registered, and <i>Status</i> indicates the status of the IPC in relation to the server. If the IP address of the server is the IP address of the local device and the status is Online, it indicates that the IPC has been added to the local device. - Uniview IPCs can be added to a device only when the device supports automatic discovery; otherwise, the adding operation fails. - The displayed parameters vary according to different types of IPCs. That is, the parameters displayed for a Uniview IPC are different from the parameters displayed for a third-party IPC.	 
3. Add Uniview IPCs. - Add a single IPC: Select a Uniview IPC to be added. The parameter values of the IPC are displayed below the IPC list. You can modify relevant parameters. For details about important parameters, see Table 2-2. Click Add to add the selected IPC. - Add IPCs in batches: Select multiple Uniview IPCs to be added, and then click Add Selected. The system adds the selected IPCs in batches according to default parameter values.	

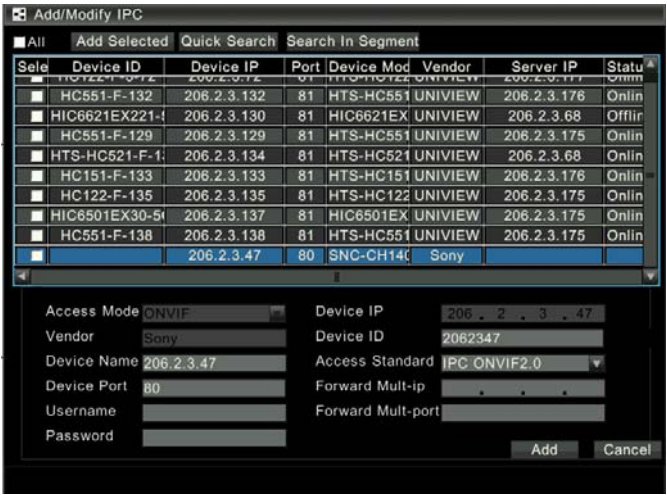
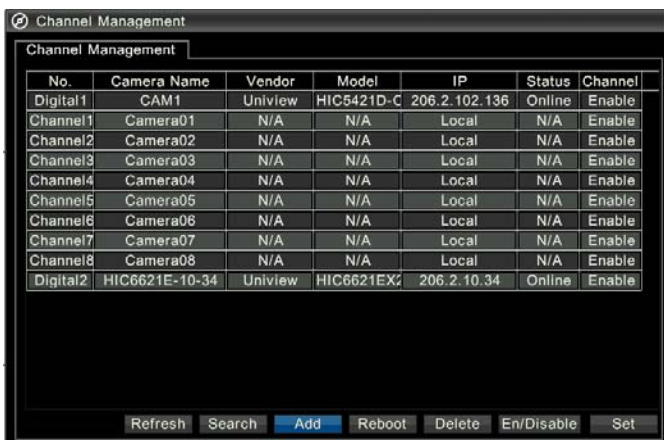
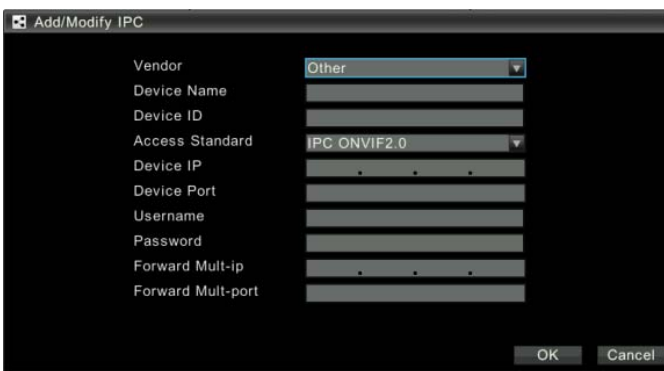
Steps	Screenshot
4. Add third-party IPCs. - Add a single IPC: Select a third-party IPC to be added. The parameter values of the IPC are displayed below the IPC list. You can modify relevant parameters. For details about important parameters, see Table 2-2. Click Add to add the selected IPC. - Add IPCs in batches: Select multiple third-party IPCs to be added, and then click Add Selected. The system adds the selected IPCs in batches according to default parameter values.	

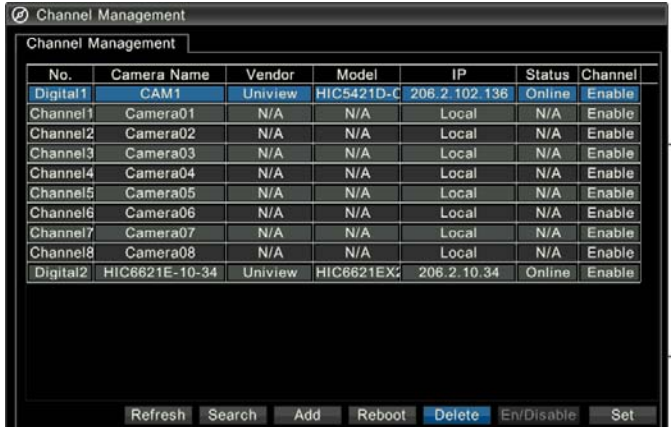
Table 2-2 Description of Important Parameters Involved in IPC Addition

IPC Type	Parameter	Description
Uniview IPCs	Access Mode	Access mode of Uniview IPCs. The default value is Uniview . You can also set the access mode to ONVIF as necessary.
	Password	Password for the user admin to log in to the IPC web interface. Note: <i>If the entered password is different from the initial password, the initial password will be replaced by the current password.</i>
	Confirm	Confirmed password for the user admin to log in to the IPC web interface.
Third-party IPCs	Username Password	Username and password provided by the third-party IPC for ONVIF authentication.
	Forward Multi-ip Forward Multi-port	IP address and port number of the multicast group for audio/video stream forwarding. Note: <i>The group of information about the multicast IP address and the multicast port number must be unique on the entire network.</i>

Adding IPCs in the Manner of Customization

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Camera . The video channel interface is displayed. 2. Manually add IPCs. Click Add. The Add/Modify IPC interface is displayed.	
Add Uniview IPCs: Select Uniview from the Vendor drop-down list box, and enter relevant parameters. For details about important parameters, see Table 2-2.	
Add third-party IPCs: Select Other from the Vendor drop-down list box, and enter relevant parameters. For details about important parameters, see Table 2-2.	

Deleting IPCs

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Camera . The video channel interface is displayed. 2. Delete IPCs. Select an IPC to be deleted, and click Delete. Then confirm the deletion operation.  NOTE! <i>If storage resources have been configured for an IPC, you need to first delete the configured storage resources before deleting the IPC. For details about how to delete storage resources, refer to Deleting Storage Resources.</i>	 The screenshot shows the 'Channel Management' window. It contains a table with columns: No., Camera Name, Vendor, Model, IP, Status, and Channel. The table lists several channels, including 'Digital1' (CAM1, Uniview, HIC5421D-C, 206.2.102.136, Online, Enable) and 'Channel1' through 'Channel8' (all with N/A for Vendor and Model, Local for IP, N/A for Status, and Enable for Channel). At the bottom of the window, there are buttons for Refresh, Search, Add, Reboot, Delete, En/Disable, and Set.

Configuring Channel Parameters

- The user admin can configure analog and digital channels. Channel configuration falls into the following types:
- Camera configuration: Set camera parameters bound to channels, so that the camera can be normally put into use.
- Audio/video configuration: Set parameters such as audio encoding and video encoding parameters.
- Encoding configuration: Set the parameters of video streams according to different stream packages supported by the device.
- OSD configuration: Set parameters for masking and OSD content.
- ROI configuration: Set areas whose definition needs to be enhanced.



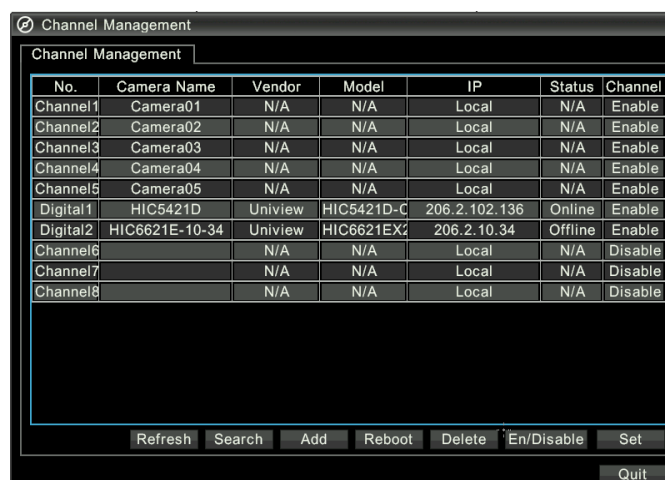
NOTE !

- The device can be completely configured only after the system has obtained model information about the device. The system can obtain device model information in the following way: A device added to the system for the first time needs to go online. If the device once went online but is currently offline, the system can also obtain the model information about the device.
- The tab pages and parameters to be set may vary according to different device types. Therefore, the actual pages may be different.

Enabling an Analog Channel

The analog channels are enabled by default when the cameras are properly connected to the video input interfaces of the device. If any analog channel is disabled, perform the following steps to enable it.

1. Choose **Menu > Camera** . The video channel interface is displayed.



No.	Camera Name	Vendor	Model	IP	Status	Channel
Channel1	Camera01	N/A	N/A	Local	N/A	Enable
Channel2	Camera02	N/A	N/A	Local	N/A	Enable
Channel3	Camera03	N/A	N/A	Local	N/A	Enable
Channel4	Camera04	N/A	N/A	Local	N/A	Enable
Channel5	Camera05	N/A	N/A	Local	N/A	Enable
Digital1	HIC5421D	Uniview	HIC5421D-C	206.2.102.136	Online	Enable
Digital2	HIC6621E-10-34	Uniview	HIC6621EX2	206.2.10.34	Offline	Enable
Channel6		N/A	N/A	Local	N/A	Disable
Channel7		N/A	N/A	Local	N/A	Disable
Channel8		N/A	N/A	Local	N/A	Disable

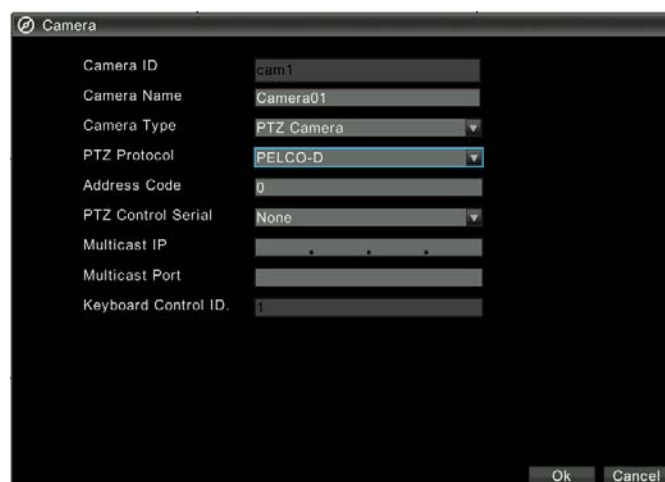
Buttons: Refresh, Search, Add, Reboot, Delete, En/Disable, Set, Quit

2. Enable a disabled analog channel.
 - 1) Select the disabled channel from the channel list, and then click the **En/Disable** button.
 - 2) Configure the parameters for the analog channel. For a description of the major parameters, see xxx.
 - 3) Click the **Set** button to save the configuration.



NOTE!

When the channel is enabled, its state is displayed as **Enable** in the **Channel** column. For channels that have been enabled, skip this step.



Camera ID: Cam1

Camera Name: Camera01

Camera Type: PTZ Camera

PTZ Protocol: PELCO-D

Address Code: 0

PTZ Control Serial: None

Multicast IP: . . .

Multicast Port: . . .

Keyboard Control ID: 1

Buttons: Ok, Cancel

Table 2-3 Parameter Descriptions for Configuring an Analog Channel

Parameter	Description
PTZ Protocol	PTZ protocol that the PTZ camera supports.
Address Code	Address code of the PTZ camera. In order to control the PTZ camera, you need to decrease the address code of the PTZ camera if necessary when the PTZ protocols are PELCO-P, ALEC PELCO-P, MINKING PELCO-P, JINSANLI_PELCO-P, and YAAN_PELCO-P. Otherwise, you cannot control the PTZ.
PTZ Control Serial	Number of the serial port of the DVR bound to the PTZ camera. Setting this parameter to None indicates that no serial port is bound to the camera. Note: You need to choose Menu > Configuration > Serial Port Configuration and then set the serial port mode to PTZ Control .
Multicast IP	IP address of the multicast group that will receive the audio and video streams from the camera.

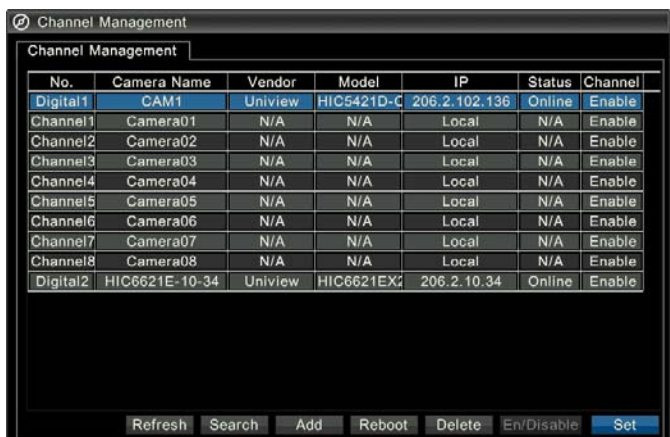
	This parameter is effective only when the DVR supports multicast. The combination of the IP address and port number of the multicast group must be unique in the network.
MulticastPort	Port number of the multicast group that will receive the audio and video streams.
Keyboard	Channel number that you enter when using a keyboard to control the PTZ camera. The key number for a camera corresponds to its channel number. For example, the key number for channel 3 is 3.

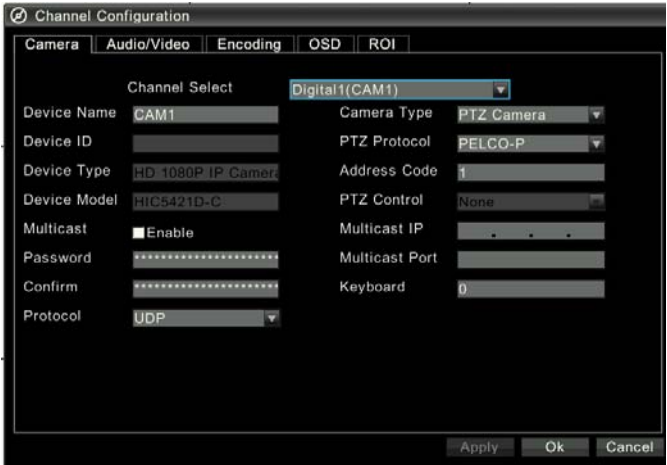


NOTE !

To delete a camera bound to an analog channel, select the channel and then click the **En/Disable** button in the **Channel Management** interface. Make sure that **Disabled** is displayed in the **Channel** column. If a storage plan has been configured for the camera, you must delete the storage resource first. For the detailed steps, refer to [Deleting Storage Resources](#).

Configuring Camera Parameters

Steps	Screenshot																																																																													
1. Right-click anywhere in the preview interface, and then choose Menu > Camera . The video channel interface is displayed. 2. Select the channel to be configured from the video channel list, and then click Set. The selected analog channel must be in Enable state.	 The screenshot shows the 'Channel Management' window. It contains a table with the following data: <table><tr><th>No.</th><th>Camera Name</th><th>Vendor</th><th>Model</th><th>IP</th><th>Status</th><th>Channel</th></tr><tr><td>Digital1</td><td>CAM1</td><td>Uniview</td><td>HIC5421D-C</td><td>206.2.102.136</td><td>Online</td><td>Enable</td></tr><tr><td>Channel1</td><td>Camera01</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel2</td><td>Camera02</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel3</td><td>Camera03</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel4</td><td>Camera04</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel5</td><td>Camera05</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel6</td><td>Camera06</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel7</td><td>Camera07</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel8</td><td>Camera08</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Digital2</td><td>HIC6621E-10-34</td><td>Uniview</td><td>HIC6621EX2</td><td>206.2.10.34</td><td>Online</td><td>Enable</td></tr></table> At the bottom of the window, there are buttons: Refresh, Search, Add, Reboot, Delete, En/Disable, and Set.	No.	Camera Name	Vendor	Model	IP	Status	Channel	Digital1	CAM1	Uniview	HIC5421D-C	206.2.102.136	Online	Enable	Channel1	Camera01	N/A	N/A	Local	N/A	Enable	Channel2	Camera02	N/A	N/A	Local	N/A	Enable	Channel3	Camera03	N/A	N/A	Local	N/A	Enable	Channel4	Camera04	N/A	N/A	Local	N/A	Enable	Channel5	Camera05	N/A	N/A	Local	N/A	Enable	Channel6	Camera06	N/A	N/A	Local	N/A	Enable	Channel7	Camera07	N/A	N/A	Local	N/A	Enable	Channel8	Camera08	N/A	N/A	Local	N/A	Enable	Digital2	HIC6621E-10-34	Uniview	HIC6621EX2	206.2.10.34	Online	Enable
No.	Camera Name	Vendor	Model	IP	Status	Channel																																																																								
Digital1	CAM1	Uniview	HIC5421D-C	206.2.102.136	Online	Enable																																																																								
Channel1	Camera01	N/A	N/A	Local	N/A	Enable																																																																								
Channel2	Camera02	N/A	N/A	Local	N/A	Enable																																																																								
Channel3	Camera03	N/A	N/A	Local	N/A	Enable																																																																								
Channel4	Camera04	N/A	N/A	Local	N/A	Enable																																																																								
Channel5	Camera05	N/A	N/A	Local	N/A	Enable																																																																								
Channel6	Camera06	N/A	N/A	Local	N/A	Enable																																																																								
Channel7	Camera07	N/A	N/A	Local	N/A	Enable																																																																								
Channel8	Camera08	N/A	N/A	Local	N/A	Enable																																																																								
Digital2	HIC6621E-10-34	Uniview	HIC6621EX2	206.2.10.34	Online	Enable																																																																								

Steps	Screenshot
3. Configure camera parameters. Click the Camera tab, and select a channel from the Channel Select drop-down list box. The channel parameters displayed for analog channels, uniview IPCs and third-party IPCs are different. 4. Click Ok. The configuration is saved.	
The figure on the right shows the camera parameters for the analog channel. For details about the important camera parameters for the analog channel, see Table 2-4.	
The figure on the right shows the camera configuration for the channels of Uniview IPCs. For details about important parameters, see Table 2-4.	

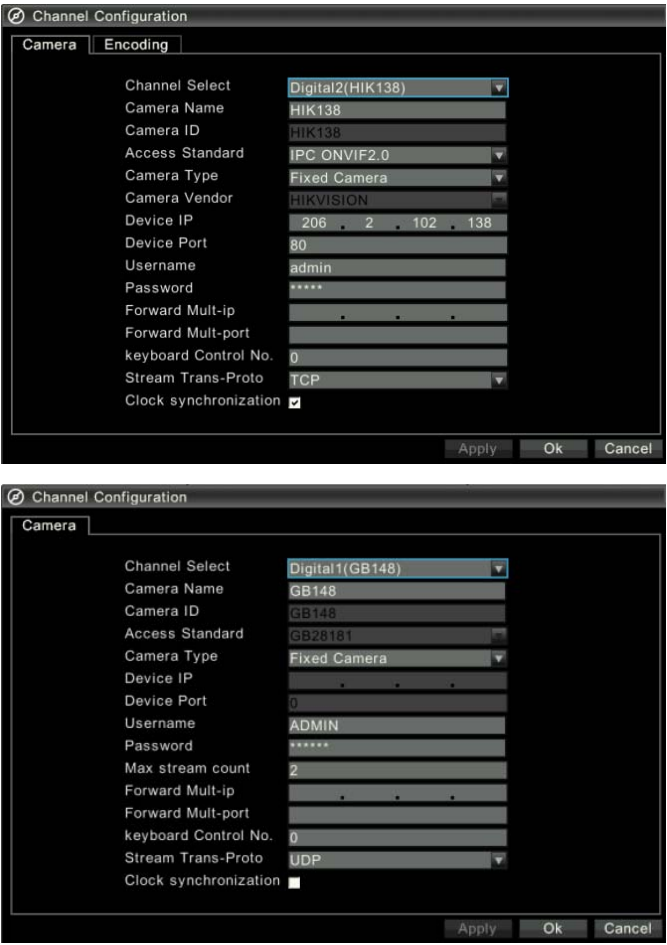
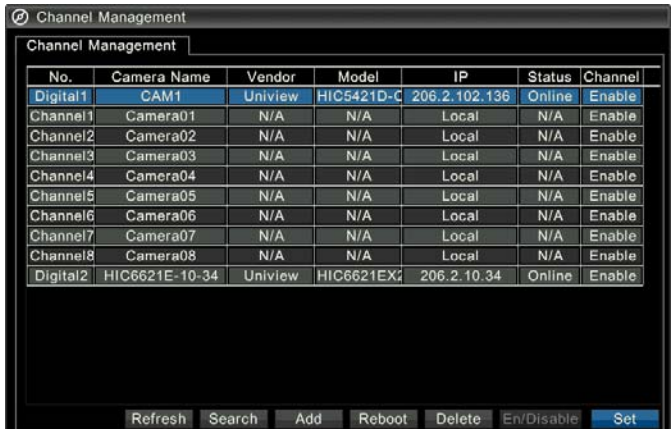
Steps	Screenshot
The figures on the right show the camera configuration for the channels of third-party IPCs. For details about important parameters, see Table 2-4.	

Table 2-4 Description of Important Parameters Involved in the Camera Configuration of Channels of IPCs

IPC Type	Parameter	Description
Uniview IPCs	Password	Password for the user admin to log in to the IPC web interface
	Confirm	Confirmed password for the user admin to log in to the IPC web interface
	Protocol	Transport protocol for real-time streams The default is UDP . You may change the value to TCP as required.
	Camera Type	Camera type, which can be a fixed camera or a PTZ camera Note: <i>If the specific model of the device is unavailable because the IPC is not registered or not online, the camera is a fixed camera.</i>
	PTZ Protocol	PTZ protocol supported by the PTZ camera Note: <i>For dome and half-dome cameras, the PTZ protocol can be the INTERNAL-PTZ protocol only.</i>

IPC Type	Parameter	Description
	Address Code	Address code of the PTZ camera Note: When PTZ Protocol is set to PELCO-P, ALECPELCO-P, or MINKINGPELCO-P, you need to decrement the address code of PTZ hardware by 1 to obtain the address code here; otherwise, the PTZ cannot be controlled. For some PTZ cameras, the address code is automatically decremented by 1 and then the minus operation does not need to be performed.
	PTZ Control	Serial port number bound to the PTZ camera to facilitate PTZ control. None indicates that no serial port is bound. Note: The serial port needs to be controlled by the PTZ. Right-click anywhere in the preview interface, and then choose Menu > Configuration > Serial Port Configuration, and then configure the serial port mode.
	Multicast IP Multicast Port	IP address and port number of the multicast group for audio/video streams Note: The multicast IP address is valid only when the IPC supports multicast. In addition, the group of information about the multicast IP address and the multicast port number must be unique on the entire network.
Third-party IPCs	Username Password	Username and password provided by the third-party IPC for ONVIF authentication when the access mode is ONVIF
	Forward Mult-ip Forward Mult-port	IP address and port number of the multicast group for audio/video stream forwarding Note: The group of information about the multicast IP address and the multicast port number must be unique on the entire network.

Configuring Audio and Video Parameters

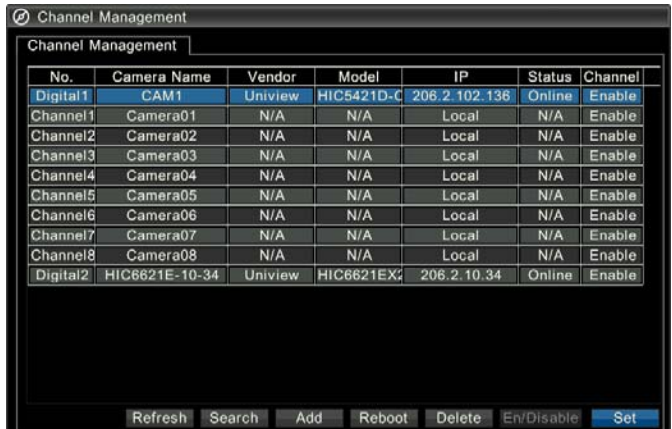
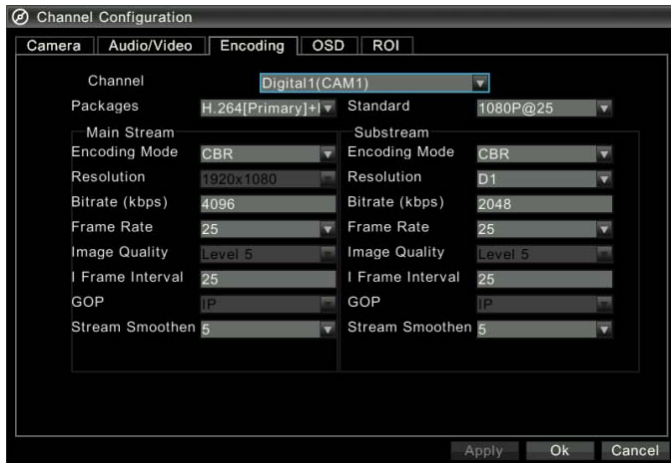
Steps	Screenshot																																																																													
1. Right-click anywhere in the preview interface, and then choose Menu > Camera . The video channel interface is displayed. 2. Select the channel to be configured from the video channel list, and then click Set. The selected analog channel must be in Enable state.	 The screenshot shows the 'Channel Management' window. It contains a table with the following data: <table><thead><tr><th>No.</th><th>Camera Name</th><th>Vendor</th><th>Model</th><th>IP</th><th>Status</th><th>Channel</th></tr></thead><tbody><tr><td>Digital1</td><td>CAM1</td><td>Uniview</td><td>HIC5421D-C</td><td>206.2.102.136</td><td>Online</td><td>Enable</td></tr><tr><td>Channel1</td><td>Camera01</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel2</td><td>Camera02</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel3</td><td>Camera03</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel4</td><td>Camera04</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel5</td><td>Camera05</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel6</td><td>Camera06</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel7</td><td>Camera07</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel8</td><td>Camera08</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Digital2</td><td>HIC6621E-10-34</td><td>Uniview</td><td>HIC6621EX2</td><td>206.2.10.34</td><td>Online</td><td>Enable</td></tr></tbody></table> At the bottom of the window are buttons: Refresh, Search, Add, Reboot, Delete, En/Disable, and Set.	No.	Camera Name	Vendor	Model	IP	Status	Channel	Digital1	CAM1	Uniview	HIC5421D-C	206.2.102.136	Online	Enable	Channel1	Camera01	N/A	N/A	Local	N/A	Enable	Channel2	Camera02	N/A	N/A	Local	N/A	Enable	Channel3	Camera03	N/A	N/A	Local	N/A	Enable	Channel4	Camera04	N/A	N/A	Local	N/A	Enable	Channel5	Camera05	N/A	N/A	Local	N/A	Enable	Channel6	Camera06	N/A	N/A	Local	N/A	Enable	Channel7	Camera07	N/A	N/A	Local	N/A	Enable	Channel8	Camera08	N/A	N/A	Local	N/A	Enable	Digital2	HIC6621E-10-34	Uniview	HIC6621EX2	206.2.10.34	Online	Enable
No.	Camera Name	Vendor	Model	IP	Status	Channel																																																																								
Digital1	CAM1	Uniview	HIC5421D-C	206.2.102.136	Online	Enable																																																																								
Channel1	Camera01	N/A	N/A	Local	N/A	Enable																																																																								
Channel2	Camera02	N/A	N/A	Local	N/A	Enable																																																																								
Channel3	Camera03	N/A	N/A	Local	N/A	Enable																																																																								
Channel4	Camera04	N/A	N/A	Local	N/A	Enable																																																																								
Channel5	Camera05	N/A	N/A	Local	N/A	Enable																																																																								
Channel6	Camera06	N/A	N/A	Local	N/A	Enable																																																																								
Channel7	Camera07	N/A	N/A	Local	N/A	Enable																																																																								
Channel8	Camera08	N/A	N/A	Local	N/A	Enable																																																																								
Digital2	HIC6621E-10-34	Uniview	HIC6621EX2	206.2.10.34	Online	Enable																																																																								
3. Configure audio and video parameters. Click the Audio/Video tab, select a channel from the Channel Select drop-down list box, and configure audio and video parameters. Mirror Mode is only applicable to cameras in corridor mode. Third-party IPCs do not support the configuration of audio and video parameters. 4. Click Ok. The configuration is saved.	 The screenshot shows the 'Channel Configuration' window with the 'Audio/Video' tab selected. The 'Channel Select' dropdown is set to 'Digital1(CAM1)'. The 'Audio Parameters' section includes: Mute (checked), Sound Track (Mono), Audio Encoding (G.711U), Audio Bitrate (64K), Audio Sampling Rate (8K), and Audio Gain (184). The 'Video Parameters' section includes: Brightness (128), Hue (128), Contrast (128), Saturation (128), and Mirror Mode (Turn 90 degrees to the right). There is a 'Set' button next to the Mirror Mode dropdown. At the bottom are 'Apply', 'Ok', and 'Cancel' buttons.																																																																													



NOTE !

You can click **Set** in the interface to exactly set the brightness, hue, contrast, and saturation of images in the preview state by using slide blocks. Click **Ok** after the setting.

Configuring Encoding Parameters

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Camera . The video channel interface is displayed. 2. Select the channel to be configured from the video channel list, and then click Set. The selected analog channel must be in Enable state.	
3. Configure encoding parameters. Click the Encoding tab, select a channel from the Channel Select drop-down list box, and configure encoding parameters. The parameters displayed for analog channels, uniview IPCs and third-party IPCs are different. For third-party IPCs, you can only view but cannot modify their encoding parameters. The figure on the right shows the encoding configuration of Uniview IPCs. For details about important parameters, see Table 2-5.	
The figure on the right shows the code parameters for the analog channel. For details about important parameters, see Table 2-5.	
4. Click Ok. The configuration is saved.	-



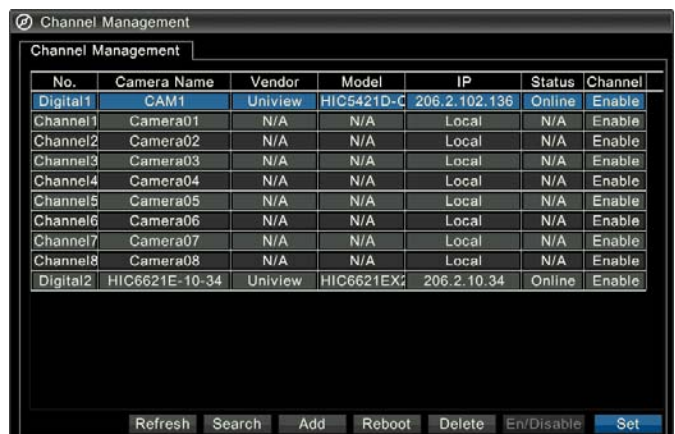
NOTE !

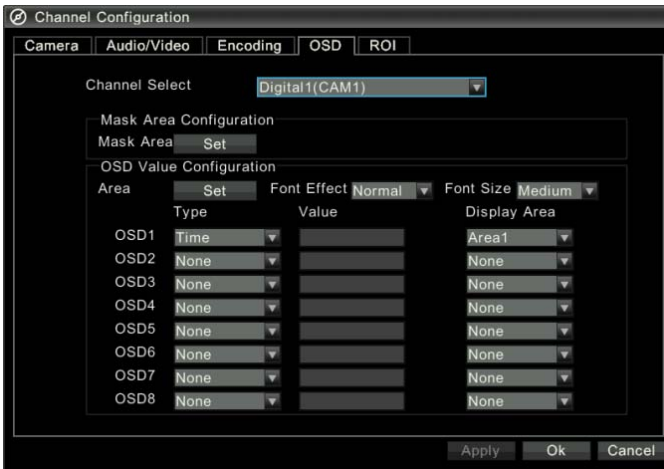
- Parameter configuration of secondary streams may be involved here, depending on different packages supported by the device. The meanings of specific parameters are similar to those of primary streams and therefore are not separately listed.
- For different models, different parameters may be displayed, so refer to the actual interface for the specific parameters.

Table 2-5 Description of Important Parameters Involved in Encoding Configuration

Parameter	Description
Main Stream Encoding Mode/Substream Encoding Mode	- CBR: The device sends data at a constant bit rate. - VBR: The device dynamically adjusts its encoding rate according to image quality.
Stream Smoothen	Whether to enable the stream smoothing function Note: <i>This parameter is effective when a digital channel is selected.</i> <i>When the network environment is poor, you can enable the stream smoothing function, so that images are much smoother. This, however, brings a certain delay.</i> <i>If the stream smoothing function is enabled, it is recommended that cache control be enabled in basic configuration to avoid intermittent interruption during live viewing.</i>

Configuring OSD Parameters

Steps	Screenshot																																																																													
1. Right-click anywhere in the preview interface, and then choose Menu > Camera . The video channel interface is displayed. 2. Select the channel to be configured from the video channel list, and then click Set. The selected analog channel must be in Enable state.	 The screenshot shows the 'Channel Management' window. It contains a table with the following data: <table><tr><th>No.</th><th>Camera Name</th><th>Vendor</th><th>Model</th><th>IP</th><th>Status</th><th>Channel</th></tr><tr><td>Digital1</td><td>CAM1</td><td>Uniview</td><td>HIC5421D-C</td><td>206.2.102.136</td><td>Online</td><td>Enable</td></tr><tr><td>Channel1</td><td>Camera01</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel2</td><td>Camera02</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel3</td><td>Camera03</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel4</td><td>Camera04</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel5</td><td>Camera05</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel6</td><td>Camera06</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel7</td><td>Camera07</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel8</td><td>Camera08</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Digital2</td><td>HIC6621E-10-34</td><td>Uniview</td><td>HIC6621EX2</td><td>206.2.10.34</td><td>Online</td><td>Enable</td></tr></table> At the bottom of the window, there are buttons: Refresh, Search, Add, Reboot, Delete, En/Disable, and Set.	No.	Camera Name	Vendor	Model	IP	Status	Channel	Digital1	CAM1	Uniview	HIC5421D-C	206.2.102.136	Online	Enable	Channel1	Camera01	N/A	N/A	Local	N/A	Enable	Channel2	Camera02	N/A	N/A	Local	N/A	Enable	Channel3	Camera03	N/A	N/A	Local	N/A	Enable	Channel4	Camera04	N/A	N/A	Local	N/A	Enable	Channel5	Camera05	N/A	N/A	Local	N/A	Enable	Channel6	Camera06	N/A	N/A	Local	N/A	Enable	Channel7	Camera07	N/A	N/A	Local	N/A	Enable	Channel8	Camera08	N/A	N/A	Local	N/A	Enable	Digital2	HIC6621E-10-34	Uniview	HIC6621EX2	206.2.10.34	Online	Enable
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Digital2	HIC6621E-10-34	Uniview	HIC6621EX2	206.2.10.34	Online	Enable																																																																								

Steps	Screenshot																																									
3. Configure OSD parameters. 1) Click the OSD tab, and set parameters. For details about the parameters, see Table 2-6.  NOTE! <i>The parameters to be set vary according to different device types. Therefore, the actual GUIs may be different.</i>	  <table><thead><tr><th>Area</th><th>Set</th><th>Font Effect</th><th>Normal</th><th>Font Size</th><th>Medium</th></tr><tr><th>Type</th><th>Value</th><th>Display Area</th></tr></thead><tbody><tr><td>OSD1</td><td>Time</td><td></td><td>Area1</td></tr><tr><td>OSD2</td><td>None</td><td></td><td>None</td></tr><tr><td>OSD3</td><td>None</td><td></td><td>None</td></tr><tr><td>OSD4</td><td>None</td><td></td><td>None</td></tr><tr><td>OSD5</td><td>None</td><td></td><td>None</td></tr><tr><td>OSD6</td><td>None</td><td></td><td>None</td></tr><tr><td>OSD7</td><td>None</td><td></td><td>None</td></tr><tr><td>OSD8</td><td>None</td><td></td><td>None</td></tr></tbody></table>	Area	Set	Font Effect	Normal	Font Size	Medium	Type	Value	Display Area	OSD1	Time		Area1	OSD2	None		None	OSD3	None		None	OSD4	None		None	OSD5	None		None	OSD6	None		None	OSD7	None		None	OSD8	None		None
Area	Set	Font Effect	Normal	Font Size	Medium																																					
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OSD8	None		None																																							

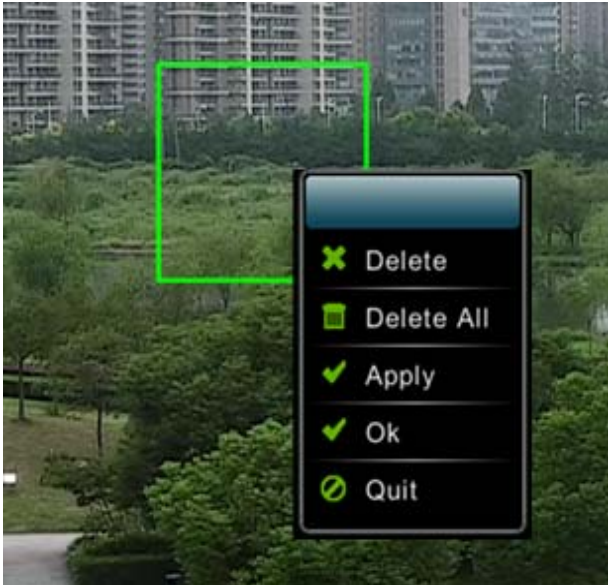
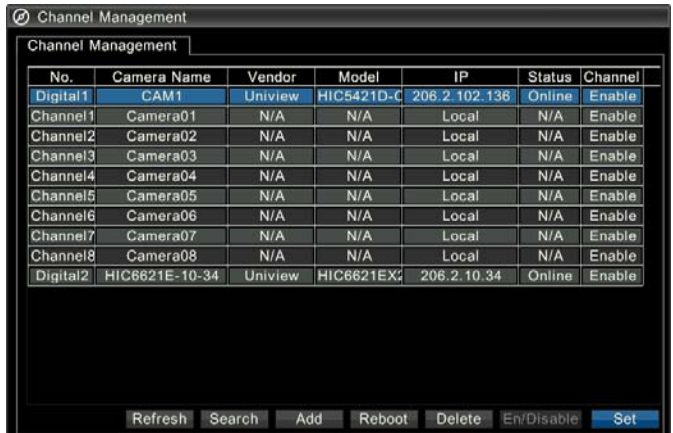
Steps	Screenshot
2) Configure the mask area. Click Set to enter the channel preview state. 3) Hold and drag the left button of the mouse to draw a rectangular frame to set a valid area. After setting the mask area, right-click in the mask area, and then choose Apply or Ok to finish setting the mask area.  NOTE! • <i>IPCs supporting mask area configuration may or may not support 3D mask areas. This depends on the specific model of the device.</i> • <i>When setting a 3D mask area, move the area to be masked to the middle of the screen at first, and then set the valid mask area.</i> • <i>Select Mask Area from the PTZ control panel on the 3D Area Mask interface, and click To Mask Area to move the mask area to the middle of the screen. For details about the rest buttons, see the table description in Controlling a PZT Camera Through the PTZ Toolbar.</i>	
4) Configure the OSD content. Click Set beside OSD Position (or click Set beside Area if the accessed IPC is an IPC of the new style) to enter the channel preview state. 5) Hold the left button of the mouse to drag the corresponding OSD to an appropriate position, right-click the OSD, and then choose Apply or Ok to finish setting the OSD position.	
4. Click Ok. The configuration is saved.	-

Table 2-6 Description of Important Parameters Involved in OSD Configuration

Parameter	Description
Auto-switch time (s)	Time interval of switching the display between the primary value of the OSD field name and the secondary value of the OSD field name Note: If the switching time is 0, it indicates that field name switching is not performed but only the primary value of the OSD field name is displayed.
OSD Position	Position where the OSD is displayed on the pane Note: To set the position of the time OSD or the field name OSD, enable the display time or field name OSD at first, then click Set beside OSD Position to enter the preview state, click the corresponding box, and hold and drag the mouse on the box leftward, rightward, upward, or downward to adjust the display position of the OSD. Finally, right-click and choose Ok to return to the previous interface.
Mask Area	Mask area of the channel. The image content in this area will be masked. Note: To set a mask area, click Set to enter the preview state at first, hold and drag the left button of the mouse to draw the image area to be masked, and hold the mask area to change its position. Finally, right-click and choose Ok to return to the previous configuration interface.
Area	Position where the OSD is displayed on the pane Note: To set the position where the OSD is displayed, click Set to enter the preview state at first, click the corresponding box, and hold and drag the mouse on the box leftward, rightward, upward, or downward to adjust the display position of the OSD. Finally, right-click and choose Ok to return to the previous interface.
Custom Content	This parameter is valid when the OSD type is Custom. It is used to customize the OSD content to be displayed on the pane.
Display Area	Display area corresponding to the selected OSD type Note: For IPCs supporting OSD configuration, the maximum number of OSD rows and the maximum number of display areas relate to the specific device model. Therefore, perform configuration operations according to the actual page.

Configuring ROI

Steps	Screenshot																																																																													
1. Right-click anywhere in the preview interface, and then choose Menu > Camera. The video channel interface is displayed. 2. Select the channel to be configured from the video channel list, and then click Set. The selected analog channel must be in Enable state.	 The screenshot shows the 'Channel Management' window with a table of channels. The 'Digital1' channel is selected, and the 'Set' button is highlighted. <table><thead><tr><th>No.</th><th>Camera Name</th><th>Vendor</th><th>Model</th><th>IP</th><th>Status</th><th>Channel</th></tr></thead><tbody><tr><td>Digital1</td><td>CAM1</td><td>Uniview</td><td>HIC5421D-C</td><td>206.2.102.136</td><td>Online</td><td>Enable</td></tr><tr><td>Channel1</td><td>Camera01</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel2</td><td>Camera02</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel3</td><td>Camera03</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel4</td><td>Camera04</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel5</td><td>Camera05</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel6</td><td>Camera06</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel7</td><td>Camera07</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Channel8</td><td>Camera08</td><td>N/A</td><td>N/A</td><td>Local</td><td>N/A</td><td>Enable</td></tr><tr><td>Digital2</td><td>HIC6621E-10-34</td><td>Uniview</td><td>HIC6621EX</td><td>206.2.10.34</td><td>Online</td><td>Enable</td></tr></tbody></table>	No.	Camera Name	Vendor	Model	IP	Status	Channel	Digital1	CAM1	Uniview	HIC5421D-C	206.2.102.136	Online	Enable	Channel1	Camera01	N/A	N/A	Local	N/A	Enable	Channel2	Camera02	N/A	N/A	Local	N/A	Enable	Channel3	Camera03	N/A	N/A	Local	N/A	Enable	Channel4	Camera04	N/A	N/A	Local	N/A	Enable	Channel5	Camera05	N/A	N/A	Local	N/A	Enable	Channel6	Camera06	N/A	N/A	Local	N/A	Enable	Channel7	Camera07	N/A	N/A	Local	N/A	Enable	Channel8	Camera08	N/A	N/A	Local	N/A	Enable	Digital2	HIC6621E-10-34	Uniview	HIC6621EX	206.2.10.34	Online	Enable
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3. Configure ROI parameters. 1) Click the ROI tab, and select a channel from the Channel Select drop-down list box. 2) Click Set beside Area to enter the channel preview state. 3) Hold and drag the left button of the mouse to draw a rectangular frame to set a valid area. After setting the area, right-click in the area, and then choose Apply or Ok to finish setting the ROI.  NOTE! <i>It is not recommended that the valid area of ROI exceed half of the current interface.</i>	 The screenshot shows the 'Channel Configuration' window with the 'ROI' tab selected. The 'Channel Select' dropdown is set to 'Digital1(CAM1)', and the 'Area' button is highlighted.																																																																													
4. Click Ok. The configuration is saved.	-																																																																													

3 Preview

The corresponding preview interface is displayed when you complete quick configuration. For details about quick configuration, refer to [2 Initial Configuration](#).

Man-Machine Interface Output

Automatic Detection

- When powered on at the first time, the device automatically detects whether various ports are connected, so as to determine a primary port.
- The control menu of the man-machine interface is output on the primary port by default.

The primary port is selected from the following ports in the descending order of priorities: DVI, HDMI, VGA, VIDEOOUT1, and VIDEOOUT2. [Table 3-1](#) describes the detection relationship of the primary port.

Table 3-1 Detection Relationship of the Primary Port

No.	DVI	HDMI	VGA	VIDEOOUT1	VIDEOOUT2	Primary Port
1	√	√	√	√	√	DVI
2	×	√	√	√	√	HDMI
3	×	×	√	√	√	VGA
4	×	×	×	√	√	VIDEOOUT1
5	×	×	×	×	√	VIDEOOUT2



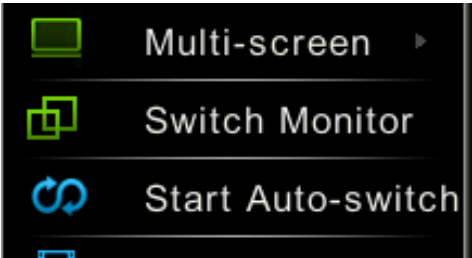
NOTE !

- All possible ports are listed above. Some types of devices, however, do not have certain types of ports. Therefore, the actual ports may be different.
- If the VIDEOOUT port is neither disabled nor connected to the monitor, the control menu of the man-machine interface will also be output on the VIDEOOUT port. Then you can hold the right button of the mouse for longer than 3 seconds and then release the right button to perform switching.

Manual Configuration

You can configure the primary port and the auxiliary port on the DVR308-08E/16E/08S/16S/16L-IN.

To select a specific port for displaying the control menu of the man-machine interface, perform the following steps:

Steps	Screenshot
1. Ensure that the port has been connected to the monitor. 2. Perform screen switching in one of the following two ways: • Right-click anywhere in the preview interface, and then choose Switch Monitor. The man-machine interface to be displayed is switched to the specified port according to the switching process in the output port detection flowchart described in Automatic Detection. • Hold the right button of the mouse for longer than 3 seconds, and then release the right button to perform switching once. The man-machine interface to be displayed is switched to the specified port according to the switching process in the output port detection relationship described in Automatic Detection.	

States on the Preview Interface

In the preview interface, the recording, alarm, and other states of various channels are presented and differentiated through icons at the top of the preview interface.

Table 3-2 Preview Icons

Icon	Name	Description
	Recording playback	This icon appears in the recording playback state (and a playback toolbar is displayed).
	Motion detection alarm	This icon appears when a motion detection alarm occurs.
	Temperature alarm	This icon appears when a high- or low-temperature alarm occurs.
	Boolean input alarm	This icon appears when a Boolean input channel alarm occurs.
	Fan alarm	This icon appears when a fan failure alarm occurs.
	Alarm triggering	This icon appears when alarm triggering occurs in the preview interface.
	Tampering alarm	This icon appears when a tampering alarm occurs.

Icon	Name	Description
	Mute	This icon appears in mute state.
	Manual recording	This icon appears in manual recording state.

Pane Toolbar on the Preview Interface

Click a pane in preview state. An operation toolbar is displayed at the bottom of the pane.

Figure 3-1 Pane Toolbar



Table 3-3 Definitions of the Buttons

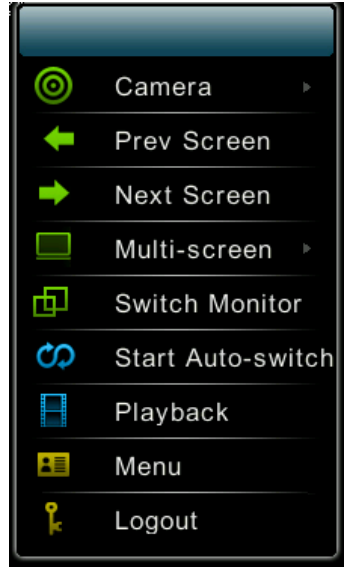
Button	Description
Stop Video	Click this button to stop playing the video in the current pane.
PTZ control	Click this button when the pane is in preview state. The PTZ control interface is displayed.
Manual Record	Click this button to locally record the live video on the current pane, and click it again to stop manual recording.
Instant playback	Click this button to replay the video of the last five minutes.
Digital zoom	Click this button to zoom in the image of a certain area in the live video or a recording.

Button	Description
Capture	Click this button to save the picture on the current pane in the form of images to a specified path. <i>Note:</i> • <i>Captured images are stored in the root directory of the user-set USB disk partition according to dates. A folder is automatically created and named in snap_date format. For example, images captured on March 24, 2013 are stored in a folder named snap_2013-03-24.</i> • <i>Before capturing images, ensure that a USB disk has been inserted into the device.</i> • <i>Name of a captured image file: username (camera name) and current time.jpg.</i>
Exit	Click this button to exit the toolbar on the current pane.

Right-Click Menu on the Preview Interface

Right-click anywhere in the preview interface. A menu is displayed, as shown in the following figure. [Table 3-4](#) describes the functions of the menu.

Table 3-4 Preview Operations

Menu Option	Description	Screenshot
Camera	You can choose this menu option to start or stop the preview of a digital channel such as an IPC.. <i>Note:</i> <i>When the camera connected through the channel is offline, the corresponding digital channel is unavailable. The preview function is available only when the camera is online.</i>	
Prev Screen/Next Screen	Shows previewed images on the previous screen or the next screen according to the current screen splitting mode and the current split-screen sequence number during polling switching.	
Multi-screen	Switches the screen splitting mode of the monitor. <i>Note:</i> • <i>The three, five, and seven split screens are used to view video images in corridor mode.</i> • <i>After you switch the screen splitting mode, other pane services that do not belong to the current screen splitting mode are automatically closed.</i>	
Switch Monitor	Switches the screen where the control menu of the man-machine interface is displayed	
Start Auto-switch	Switches the video images of various channels on the preview interface	

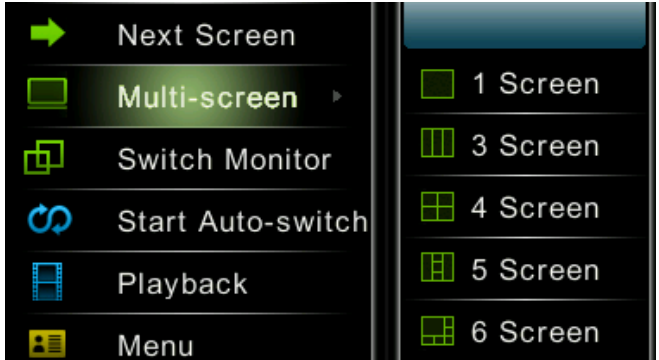
Menu Option	Description	Screenshot
Playback	Displays the recording playback interface of the channel. For details, refer to Backplay Toolbar . Note: <i>This menu option is available in the preview interface only after you log in to the device.</i>	
Menu	Displays the main menu. Note: <i>This menu option is available only after you log in to the device.</i>	
Logout	Logs out and returns to the preview state before you log in. Note: <i>This menu option is available in the preview interface only after you log in to the device.</i>	

Example of Auto-Switch Operation

Auto-switch means outputting corresponding images for preview on the preview interface of the monitor according to the cameras configured in the current screen splitting mode, and performing cyclical switching at a certain time interval.

You can enable auto-switch after completing quick configuration. For details about quick configuration, refer to [Initial Configuration](#).

In the following example, five cameras are configured and four screens are displayed on the monitor.

Steps	Screenshot
1. Switch the current preview pane to the 4-screen mode. Right-click anywhere in the preview interface, and then choose Multi-screen > 4 Screen. The screen of the monitor is split into four panes.	

Steps	Screenshot
2. Enable polling switching. Right-click anywhere in the preview interface, and then choose Start Auto-switch. The system performs polling switching according to the cameras that correspond to the panes in the 4-screen mode configured in the preview interface, with two screens displayed and four panes per screen (Only one camera is displayed on the second screen), and then continues with cyclical switching at a polling switching interval.	



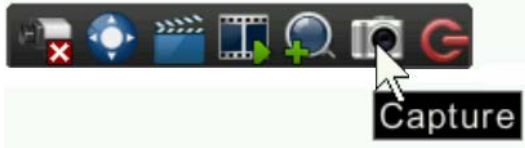
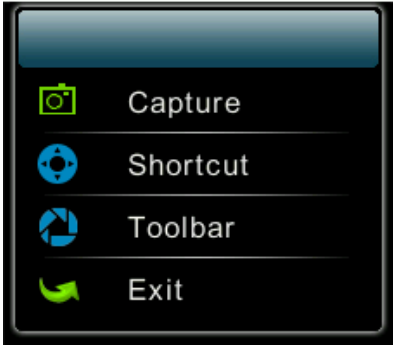
NOTE !

To switch the screen splitting mode during polling switching, right-click anywhere in the preview interface and choose **Multi-screen** to set the new screen splitting mode. Then the device starts polling switching from the first screen according to the new screen splitting mode.

Preview Capturing

Capturing means saving the picture currently displayed on the current pane to a specified path as an image file.

Before capturing images, ensure that a USB disk has been inserted into the device. Captured images are stored in the root directory of the user-set USB disk partition according to dates. A folder is automatically created and named in **snap_date** format. For example, images captured on March 24, 2013 are stored in a folder named **snap_2013-03-24**. For details about how to configure the capturing path, refer to [Basic Configuration](#).

Steps	Screenshot
In the preview interface, click a live viewing pane, and choose the Capture icon from the bottom toolbar to save the image on the pane to the USB disk.	
Right-click anywhere in the PTZ control interface and then choose Capture to save the image on the current pane to the USB disk.	



NOTE !

Name of a captured image file: username (camera name) and current time.jpg.

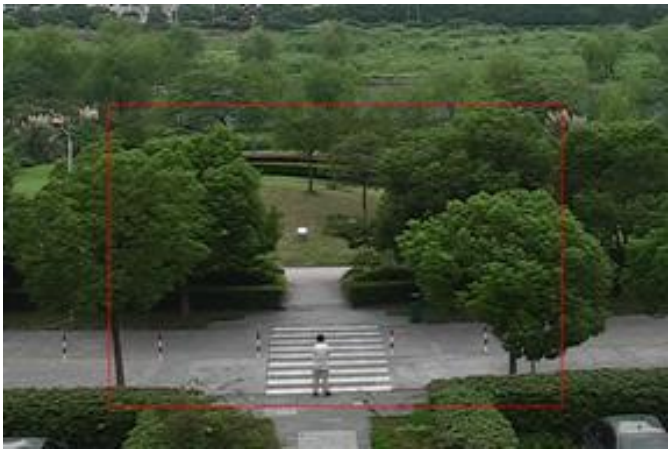
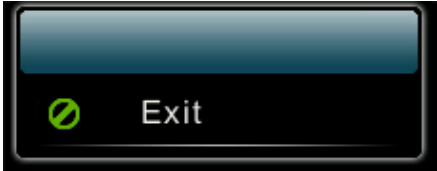
For example, admin (Camera 1)20130320(09-15-12-001).jpg indicates the image captured by the user admin at 09:15:12 on March 20, 2013, and 001 indicates that it is the first picture captured at 09:15:12.

Digital Zoom

You can zoom in the previewed image on the current pane on a certain scale to get a better view of a certain area.

To perform digital zoom, perform the following steps:

Steps	Screenshot
Access the digital zoom interface. In the preview interface, click a live viewing pane and then choose the digital zoom icon from the bottom toolbar. The digital zoom interface is displayed.	

Steps	Screenshot
2. Identify the area to be zoomed in. Hold and drag the left button of the mouse to draw a rectangular area to be zoomed in.	
3. Zoom in the display. Release the left button of the mouse. The selected area is zoomed in.  NOTE ! <i>Right-click the zoomed-in area to restore the previous view, or repeat steps 2 and 3 to zoom in other areas.</i>	
4. Exit the digital zoom interface. Right-click anywhere in the preview interface of a normal size, and then choose Exit to end the digital zoom operation.	

Configuring Preview Parameters

In general, you can start preview after completing the configuration according to the power-on wizard. If necessary, perform the following steps to modify configured preview parameters. In the following figure, the output port and the number of screens supported by the device are for your reference only. The actual GUIs may vary according to different device models.

Only the user **admin** can perform preview configuration.

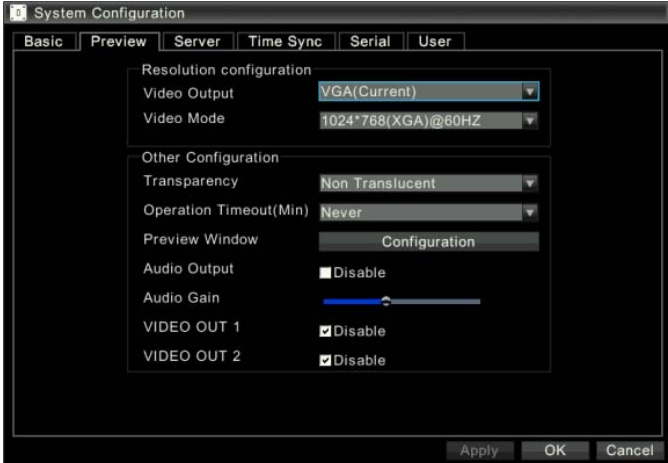
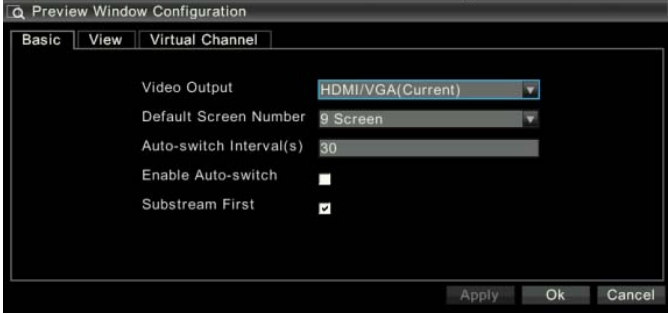
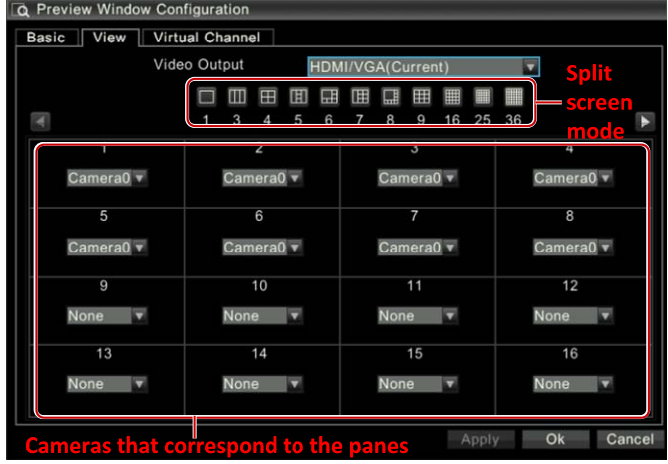
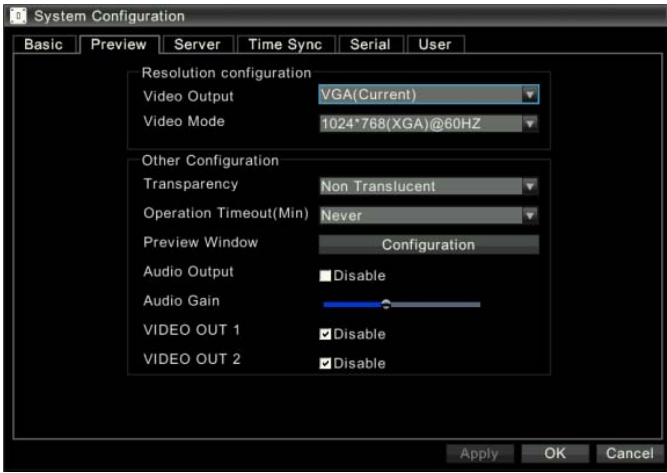
Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Configuration > Preview. The preview configuration interface is displayed. 2. Configure preview parameters. 3. Configure preview window parameters. 1) Click Preview Window Configuration. The Preview Window Configuration interface is displayed.	
2) On the Basic tab page, select the output port and configure various parameters, including Default Screen Number (indicating the default number of screens after power-on), Enable Auto-switch (indicating whether to enable polling switching), Auto-switch Interval (indicating the polling switching interval), and Substream First (indicating whether secondary streams are preferred in multi-pane mode). For details about important parameters, see Table 3-5.	
3) On the View tab page, select the output port and configure the cameras that correspond to the panes in each screen splitting mode. For details about important parameters, see Table 3-5. 4) Click Ok. The preview configuration interface is displayed.	
4. In the preview configuration interface, click Save. The configuration is saved.	-

Table 3-5 Description of Important Parameters Involved in Preview Window Configuration

Configuration Type	Parameter	Description
Basic configuration	Default Screen Number	The default number of screens of preview images output on the port Note: If you switch to another screen splitting mode during preview or polling switching, the preview interface is restored to the default number of screens upon the next startup of the device.
	Auto-switch Interval	Time interval between the current preview screen and the next preview screen during polling switching
	Enable Auto-switch	Whether to enable or disable the polling switching function Note: The polling switching state in the right-click menu is synchronized to the enabling or disabling of the polling switching function.
	Substream First	Whether secondary streams are preferred in multi-pane mode When this function is enabled, in multi-pane preview mode, secondary streams are previewed for a camera with dual streams whereas primary streams are previewed for a single-stream camera.
View configuration	Screen splitting mode	The number of screens of preview images output on the port
	Cameras corresponding to the panes	Cameras that correspond to the panes in the preview interface output on the port. Each preview screen will be switched according to this configuration in the corresponding screen splitting mode during polling switching. Note: - After you change the camera that corresponds to a certain pane in a certain screen splitting mode, the camera that correspond to the pane in the other screen splitting modes is synchronously changed. - The cameras that correspond to any two panes in the same screen splitting mode with the same output port cannot be the same. - After a certain channel is unbound, information about the camera is deleted from all panes on all output ports.

Configuring Virtual Channels

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Configuration > Preview. The preview configuration interface is displayed. 2. Configure the parameters of virtual channels. 1) Click Preview Window Configuration in the preview configuration interface. The Preview Window Configuration interface is displayed.	
2) Click the Virtual Channel tab, enable virtual channel encoding, and configure the parameters of virtual channels. For details about important parameters, see the table below.  NOTE ! - The bound port shown in the figure on the right is for your reference only. The actual bound port may be different. - After enabling virtual channel encoding and configuring relevant parameters, you can view the image of the virtual camera in the web interface. The image is the image output on the bound port. 3) Click Ok. The preview configuration interface is displayed.	
3. Click Ok. The configuration is saved.	-

Parameter	Description
Binding Port	Bound port The video images displayed from this output port are encoded as the source.

Multicast IP	IP address and port number of the multicast group of virtual channels
Multicast Port	Note: <i>The multicast IP address is valid only when the device supports multicast. In addition, the group of information about the multicast IP address and the multicast port number must be unique on the entire network.</i>

4 PTZ Control

PTZ control allows you to remotely control the speed, direction, iris, focus, wiper switch, and zoom of the PTZ, and lock the PTZ. The device also supports other functions, including automatic unlocking/releasing of the PTZ, setting a preset position of the PTZ, and PTZ patrol.



NOTE !

PTZ control is applicable to PTZ cameras only, and the actual PTZ control operations available for a PTZ camera depend on the functions of the PTZ camera and the PTZ protocol that the PTZ camera supports. For example, some vendors use some preset positions of the PTZ for other functions (such as the wiper switch or menus) instead of as PTZ preset positions. Therefore, you need to refer to the specification description of the PTZ before using it.

Controlling a PTZ Camera Through the PTZ Toolbar



NOTE !

In terms of the preemption policy for a PTZ camera, users with a higher priority can preempt the PTZ camera whereas users with the same priority cannot preempt the PTZ camera. For details about priorities, refer to [Adding a User](#).

Steps	Screenshot
1. In the preview interface, select the preview pane of a camera, and click the PTZ control icon on the toolbar. The PTZ Control interface is displayed.	

Steps	Screenshot
2. Perform PTZ control operations by using the PTZ toolbar that corresponds to the current channel in the PTZ Control interface. For details about the PTZ control operations, see Table 4-1.	

Table 4-1 Description of Icons on the PTZ Toolbar

Icon	Description
	Controls the moving direction of the PTZ or stops the PTZ.
	Adjusts the iris, focus, and zoom of the PTZ.
Start the wiper  Stop the wiper 	Starts or stops the wiper of the PTZ.
Turn on the illumination  Turn off the illumination 	Turns on or turns off the illumination of the PTZ.
Speed	Sets the moving speed of the PTZ. 1 indicates the lowest speed, and 9 indicates the highest speed.
Preset position	Shows a list of preset positions. You can select the preset position for the PTZ.
Patrol	Shows a list of PTZ camera patrol routes. You can start or stop a patrol route in the list. Note: - You can select a patrol route only after adding the patrol route. For details, refer to Adding a patrol route. - If you perform other operations on the PTZ when the PTZ is executing the patrol route, the PTZ automatically stops the patrol.
Lock the PTZ  Unlock the PTZ 	Locks or unlocks the PTZ. Note: - After the PTZ is locked, other users except the user admin cannot preempt the PTZ, unless the PTZ is unlocked or the automatic release time of the PTZ arrives. - After the PTZ is unlocked, users with a higher priority can preempt the PTZ.

Icon	Description
Release the PTZ 	Releases the PTZ.
Go to a preset position 	Calls a preset position and moves the PTZ to the selected preset position.
Add a preset position 	Adds a preset position to the list of preset positions according to the current PTZ state. Note: - If the system gives a prompt indicating that the serial control port of the PTZ is not bound, bind the port first. For details, refer to Configuring Camera Parameters. - When entering the number and description of a preset position, ensure that the number of the preset position is not identical with any existing preset position number; otherwise, the corresponding preset position will be overwritten.
Delete a preset position 	Deletes a preset position.
Set a home position 	Sets the home position and auto-back-home-position time of the PTZ. If the preset position is set to None, it indicates that no home position is used. When the PTZ camera moves to a non-home position and the PTZ control is released, if no other users are operating the camera within the auto-back-home-position time, the camera will return to the home position.
Start a patrol route 	Starts a patrol route.
Stop a patrol route 	Stops a patrol route.
Configure a patrol route 	Shows the patrol configuration interface. For details, refer to Configuring and Starting Patrol .
Exit 	Exits the toolbar, releases the PTZ, and returns to the preview interface.



NOTE !

For details about the PTZ toolbar, right-click anywhere in the preview interface, and then choose **Menu > Help Information > PTZ Toolbar** after you log in to the device.

Configuring and Calling Preset Positions

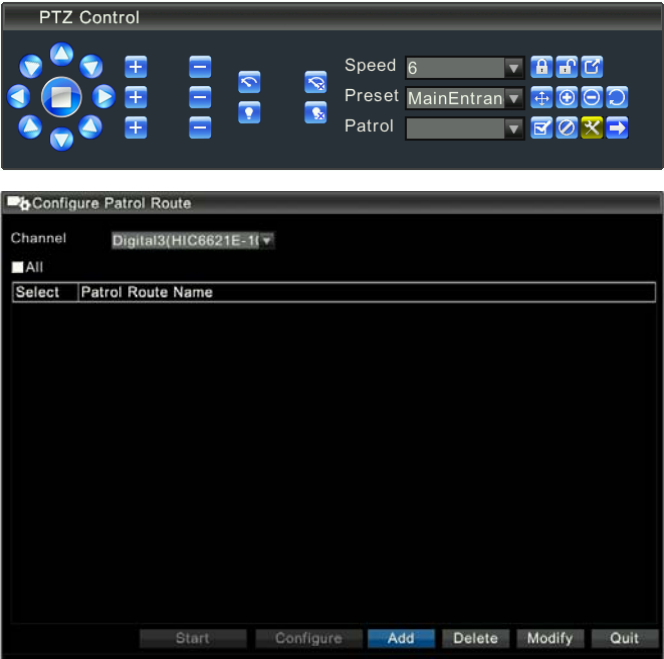
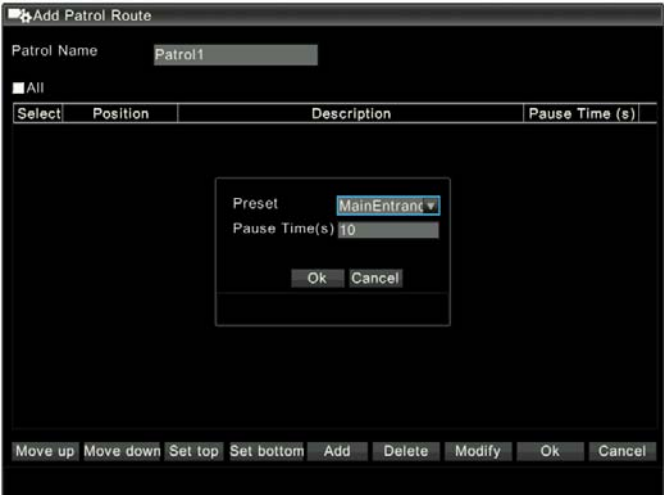
Steps	Screenshot
1. In the preview interface, select the preview pane of a camera, and click the PTZ control icon on the toolbar. The PTZ Control interface is displayed.	
2. Configure a preset position of the PTZ. Click the direction keys to move the PTZ to the desired position, click , enter a number and description for the preset position, and then click Ok save the position. Repeat the preceding operations to set other preset positions.  NOTE ! - If the system gives a prompt indicating that the serial control port of the PTZ is not bound, bind the port first. For details, refer to Configuring Channel Parameters. - When entering the number and description of the preset position, ensure that the number of the preset position is not identical with any existing preset position number; otherwise, the corresponding preset position will be overwritten. - Select a preset position, click , and then confirm the deletion to delete the preset position.	 
3. Call a preset position of the PTZ. Select the preset position to be called, and then click . The PTZ moves to the preset position.	

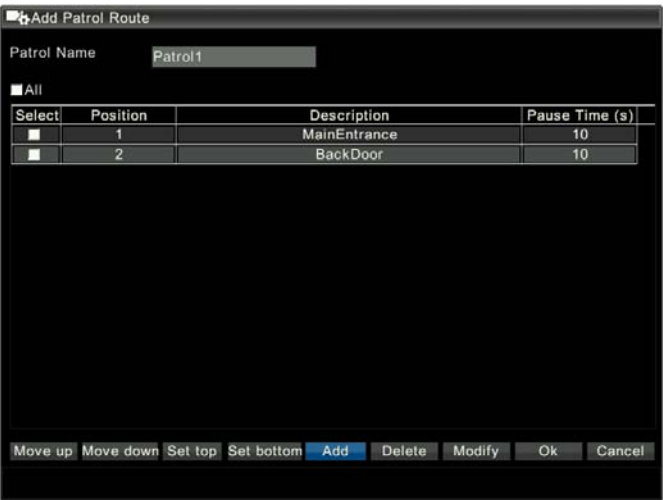
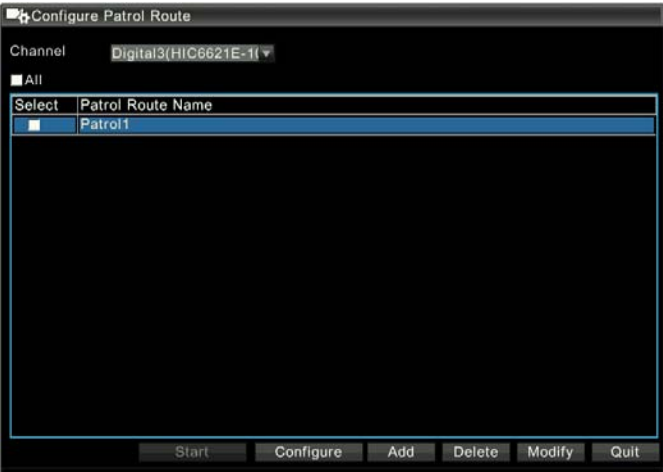
Configuring and Starting Patrol

You can configure PTZ camera patrol, including patrol routes and patrol plans. A patrol route is a route by which a PTZ camera moves between preset positions, and a patrol plan specifies time segments within which a patrol route is executed.

Configuring Patrol Routes and Plans

Adding a patrol route

Steps	Screenshot
1. In the preview interface, select the preview pane of a camera, and click the PTZ control icon on the toolbar. The PTZ Control interface is displayed.	
2. Add a patrol route. 1) Click  on the PTZ control panel. The Configure Patrol Route interface is displayed. 2) From the Channel drop-down list, select a camera for the patrol route, and then click Add. The Add Patrol Route interface is displayed.	
3) Enter the name of the patrol route. 4) Click Add, select a preset position of the PTZ camera, set the duration for the preset position in the Pause Time text box, and then click Ok. The selected preset position is added to the patrol route. 5) Repeat the preceding steps to add other preset positions as necessary.  NOTE ! You can click the Move up and Move down buttons to adjust the sequence of the preset positions in the patrol route. You can also modify or delete a preset position from the patrol route.	

Steps	Screenshot
6) After configuring all the preset positions, click Ok to finish configuring the patrol route.	
The patrol route newly configured is displayed in a list.  NOTE ! After selecting a patrol route, you can modify or delete it. The method for modifying a patrol route is similar to the method for adding a patrol route.	

Configuring a patrol plan

Before configuring a patrol plan, add a patrol route at first.

Steps	Screenshot
1. In the preview interface, select the preview pane of a camera, and click the PTZ control icon on the toolbar. The PTZ Control interface is displayed.	

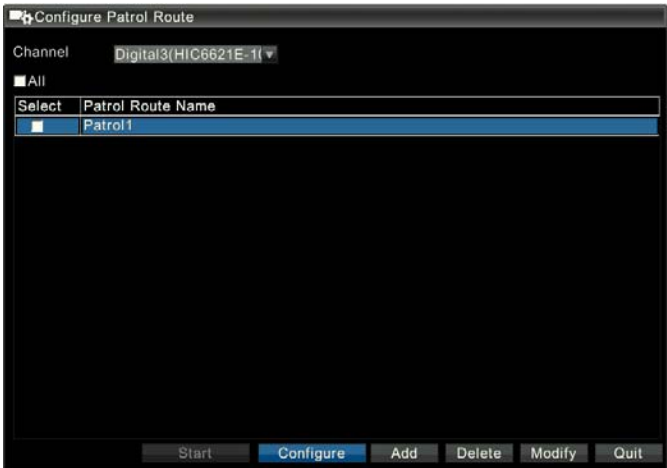
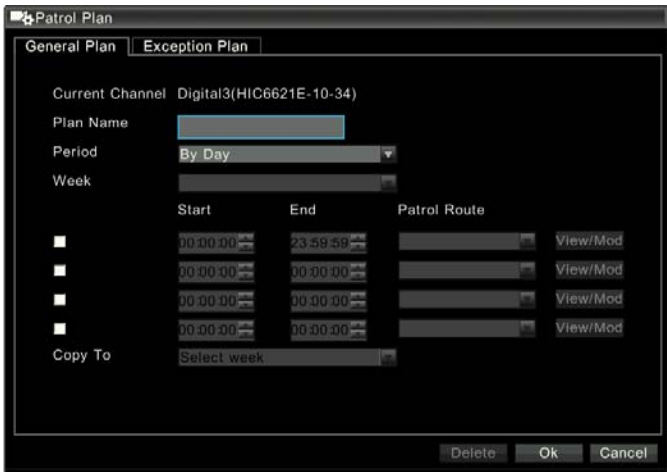
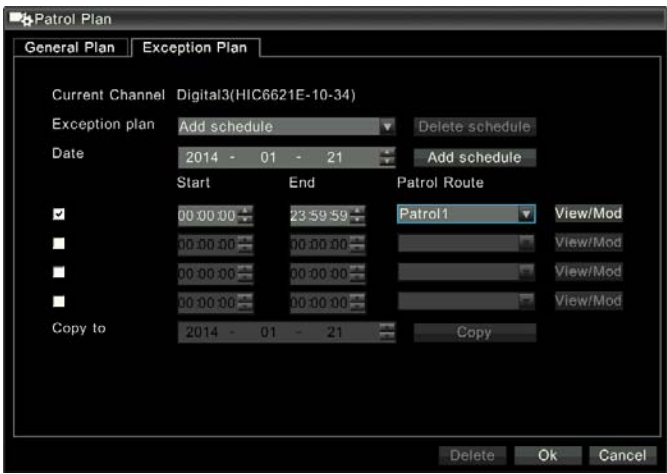
Steps	Screenshot
2. Configure a patrol plan. 1) Click  on the PTZ control panel. The Configure Patrol Route interface is displayed. 2) Select a channel for the patrol plan to be configured from the channel list. 3) Click Configure. The patrol plan configuration interface is displayed.	 
4) Configure general plans and exception plans. For details about important parameters, see Table 4-2. After configuring the parameters, click Ok. The configuration is saved. The figure on the right shows the interface for configuring a general plan.	
The figure on the right shows the interface for configuring an exception plan.	

Table 4-2 Description of Important Parameters Involved in Patrol Plan Configuration

Parameter	Description
Start End	Start time and end time of the patrol route. The time segments cannot overlap or include each other. Ensure that only one patrol route is selected for each time segment. Note: Click View/Mod to view patrol route information or modify the preset positions of the patrol route.
Exception Plan	On the day specified in the exception plan, only the patrol routes specified in the exception time segments are executed. On the other days, the normal plan will be executed. After configuring the parameters of the exception plan, click Add schedule to add the exception plan to the Exception Plan drop-down list box. Note: To delete an exception plan, select the plan from the Exception Plan drop-down list box and then click Delete schedule .

Starting Patrol

You can manually call a certain patrol route to execute the patrol operation, or start a patrol plan so that the PTZ camera performs patrol according to the patrol plan.

Manual patrol

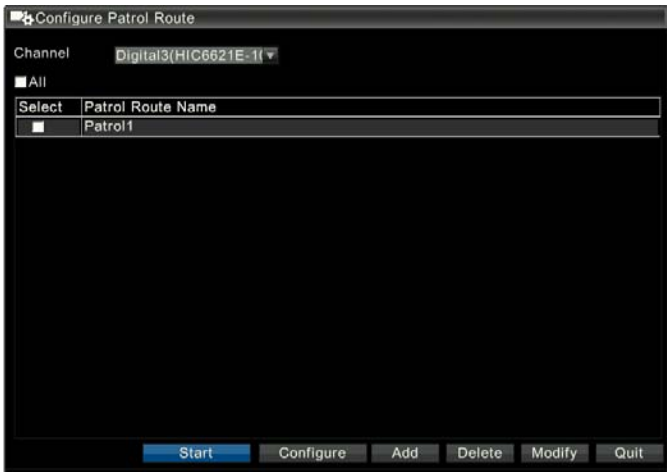
Before manually starting patrol, configure the patrol route at first. For details, refer to [Adding a patrol route](#).

Steps	Screenshot
- In the preview interface, select the preview pane of a camera, and click the PTZ control icon on the toolbar. The PTZ Control interface is displayed. - Start patrol. Select a patrol route from the Patrol drop-down list box on the PTZ control panel, and click  to start patrol or  to stop patrol.	

Starting a patrol plan

Before starting a patrol plan, configure the patrol plan at first. For details, refer to [Configuring a patrol plan](#).

Steps	Screenshot
In the preview interface, select the preview pane of a camera, and click the PTZ control icon on the toolbar. The PTZ Control interface is displayed.	

Steps	Screenshot
2. Start a patrol plan. 1) Click  on the PTZ control panel. The Configure Patrol Route interface is displayed. 2) Select a channel for the patrol plan to be started from the channel list. 3) Click Start and confirm the operation. The system starts patrol according to the patrol plan.  NOTE ! Click Stop to stop the patrol plan.	



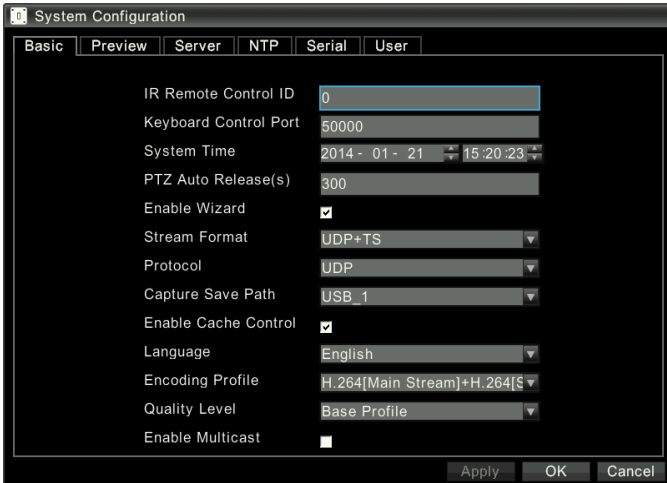
NOTE !

A patrol plan is preempted during manual patrol. The original patrol plan is not restored until the PTZ is released.

Configuring PTZ Parameters

In general, PTZ control can be performed according to default system configuration. If necessary, perform the following steps to modify PTZ configuration parameters.

Only the user **admin** can perform PTZ parameter configuration.

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Configuration > Basic. The Basic interface is displayed. 2. Configure the automatic release time of the PTZ.	

Steps	Screenshot
3. Configure the PTZ protocol, address code, and the serial port for PTZ control. 1) Choose Menu > Camera. 2) Select a channel from the video channel list, and then click Set. The selected analog channel must be in Enable state. 3) On the Camera tab page, select a channel of the PTZ camera, and configure the PTZ protocol, the address code, and the serial port for PTZ control. The parameters displayed for analog channels, uniview IPCs and third-party IPCs are different, so refer to the actual user interface for the specific parameters.	

Table 4-3 Description of Major Configuration Parameters of a Camera

Configuration Type	Parameter	Description
Basic configuration	PTZ Auto Release (s)	When the PTZ is not preempted by a user with a higher priority or the current user does not exit the PTZ control toolbar, if the current user who has the PTZ control permission does not operate the PTZ within a certain time period, the PTZ is automatically released. Then other users can obtain the permission to control the PTZ. This time period is the PTZ automatic release time.
Camera configuration	PTZ Protocol	PTZ protocol supported by the PTZ camera Note: <i>For dome and half-dome cameras, the PTZ protocol can be the INTERNAL-PTZ protocol only.</i>

Configuration Type	Parameter	Description
	Address Code	Address code of the PTZ camera Note: When PTZ Protocol is set to PELCO-P , ALECPELCO-P , or MINKINGPELCO-P , you need to decrease the address code of the PTZ hardware by 1 to obtain a valid address code and control the PTZ. For PTZ cameras for which the address code is automatically decreased by one, this operation is unnecessary.
	PTZ Control	Serial port number bound to the PTZ camera to facilitate PTZ control. None indicates that no serial port is bound. Note: The serial port is needed to control the PTZ. Right-click anywhere in the preview interface, choose Menu > Configuration > Serial Port Configuration , and then configure the serial port mode.

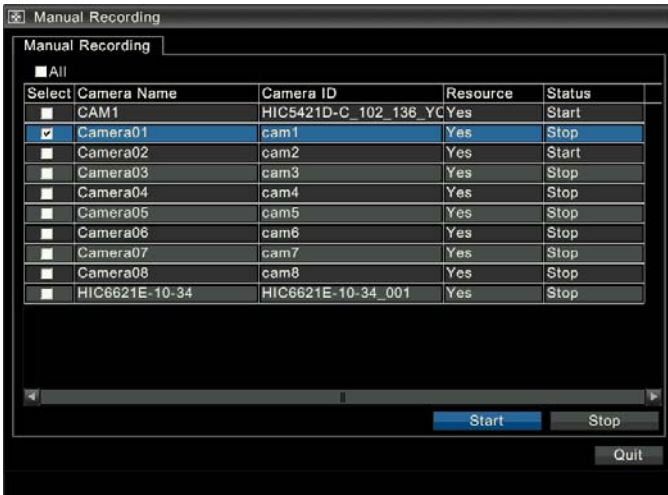
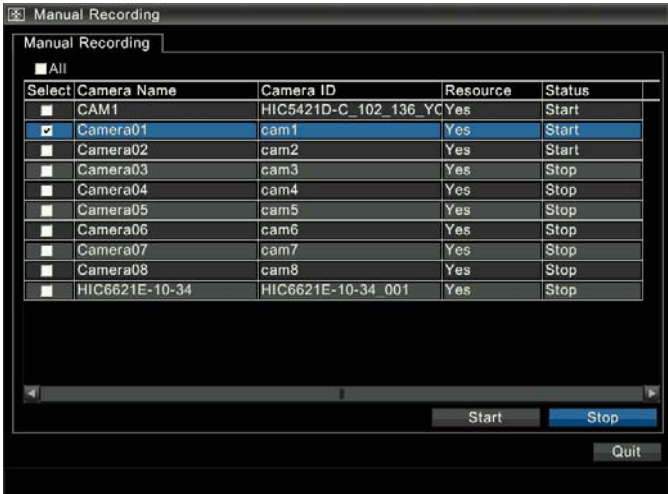
5 Recording

You can perform the recording operation after completing quick configuration. For details about quick configuration, refer to [Initial Configuration](#).

Manual Recording

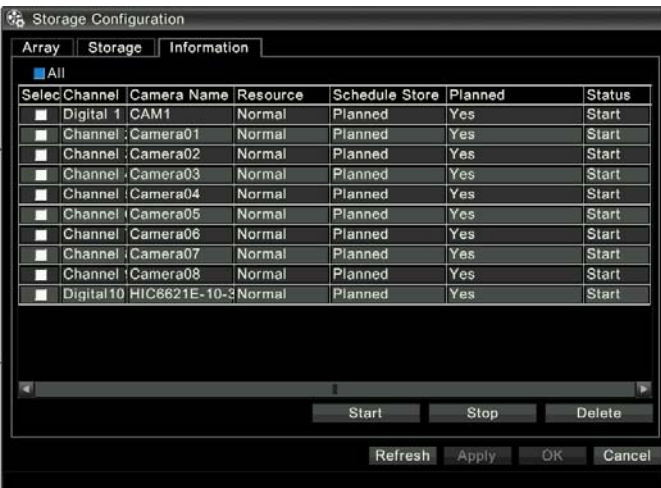
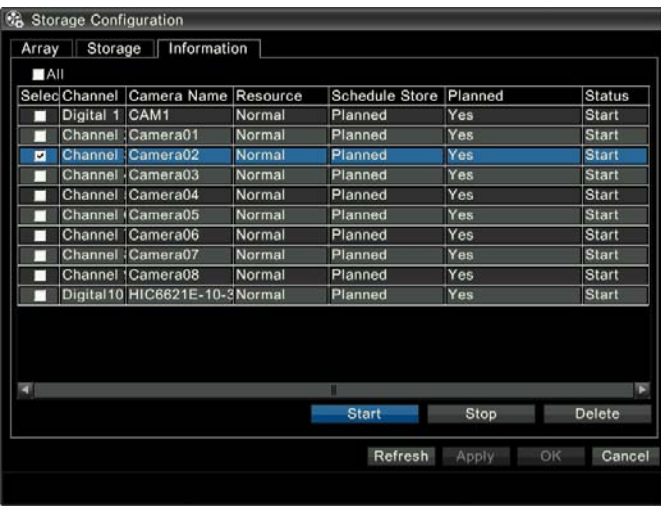
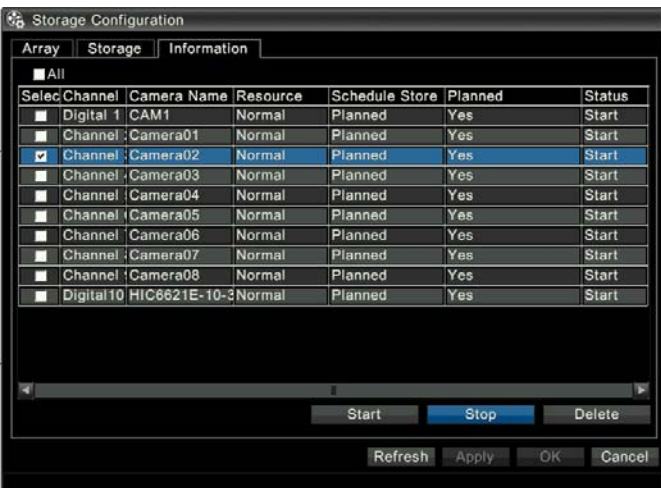
You can manually record video or audio data of a channel, and store the recorded data into a hard disk. The manual recording does not belong to planned recording or alarm-triggered recording.

Steps	Screenshot
Method 1: In the preview interface, select the pane to be recorded, and click the Manual Record icon on the toolbar to start recording. In the upper part of the pane on which manual recording has been started, the icon  appears. To stop manual recording, click the Stop Recording icon on the toolbar.	

Steps	Screenshot
Method 2: Choose Manual Record from the main menu, select the channel for which manual recording needs to be started, and then click Start. The system starts recording the audio and video captured through the selected channel. In the upper part of the pane on which manual recording has been started, the icon  appears. To stop manual recording, right-click anywhere in the preview interface, choose Menu > Manual Record, select the channel for which manual recording has been started, and then click Stop. The system stops recording the audio and video captured through the selected channel.	 

Planned Recording

You can make a storage plan for a camera so the camera can store recording according to the storage plan. After you configure the storage plan of a channel according to the power-on wizard, the storage plan of the channel is started by default in the system. If the storage plan of a certain channel has been stopped, you can perform the following steps to start the storage plan again.

Steps	Screenshot																																																																																								
1. Right-click anywhere in the preview interface, and then choose Menu > Storage > Information. The storage information interface is displayed.	 The screenshot shows the 'Storage Configuration' dialog box with the 'Information' tab selected. A table lists storage plans for various channels. The 'Status' column for all entries is 'Start'. <table><thead><tr><th>Select</th><th>Channel</th><th>Camera Name</th><th>Resource</th><th>Schedule</th><th>Store</th><th>Planned</th><th>Status</th></tr></thead><tbody><tr><td>☐</td><td>Digital 1</td><td>CAM1</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera01</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera02</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera03</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera04</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera05</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera06</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera07</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera08</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Digital10</td><td>HIC6621E-10-3</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr></tbody></table>	Select	Channel	Camera Name	Resource	Schedule	Store	Planned	Status	☐	Digital 1	CAM1	Normal	Planned		Yes	Start	☐	Channel	Camera01	Normal	Planned		Yes	Start	☐	Channel	Camera02	Normal	Planned		Yes	Start	☐	Channel	Camera03	Normal	Planned		Yes	Start	☐	Channel	Camera04	Normal	Planned		Yes	Start	☐	Channel	Camera05	Normal	Planned		Yes	Start	☐	Channel	Camera06	Normal	Planned		Yes	Start	☐	Channel	Camera07	Normal	Planned		Yes	Start	☐	Channel	Camera08	Normal	Planned		Yes	Start	☐	Digital10	HIC6621E-10-3	Normal	Planned		Yes	Start
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2. Start a storage plan. Select the channel whose storage plan needs to be started, and click Start. The data of the channel is stored according to the storage plan.	 The screenshot shows the 'Storage Configuration' dialog box with the 'Information' tab selected. The row for 'Channel: Camera02' is selected. The 'Start' button is highlighted in blue. <table><thead><tr><th>Select</th><th>Channel</th><th>Camera Name</th><th>Resource</th><th>Schedule</th><th>Store</th><th>Planned</th><th>Status</th></tr></thead><tbody><tr><td>☐</td><td>Digital 1</td><td>CAM1</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera01</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☒</td><td>Channel</td><td>Camera02</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera03</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera04</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera05</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera06</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera07</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera08</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Digital 10</td><td>HIC6621E-10-3</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr></tbody></table>	Select	Channel	Camera Name	Resource	Schedule	Store	Planned	Status	☐	Digital 1	CAM1	Normal	Planned		Yes	Start	☐	Channel	Camera01	Normal	Planned		Yes	Start	☒	Channel	Camera02	Normal	Planned		Yes	Start	☐	Channel	Camera03	Normal	Planned		Yes	Start	☐	Channel	Camera04	Normal	Planned		Yes	Start	☐	Channel	Camera05	Normal	Planned		Yes	Start	☐	Channel	Camera06	Normal	Planned		Yes	Start	☐	Channel	Camera07	Normal	Planned		Yes	Start	☐	Channel	Camera08	Normal	Planned		Yes	Start	☐	Digital 10	HIC6621E-10-3	Normal	Planned		Yes	Start
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3. Stop a storage plan. Select a channel whose storage plan needs to be stopped. Then click Stop. The status of the channel changes from Start to Stop in a storage information list.	 The screenshot shows the 'Storage Configuration' dialog box with the 'Information' tab selected. The row for 'Channel: Camera02' is selected. The 'Stop' button is highlighted in blue. <table><thead><tr><th>Select</th><th>Channel</th><th>Camera Name</th><th>Resource</th><th>Schedule</th><th>Store</th><th>Planned</th><th>Status</th></tr></thead><tbody><tr><td>☐</td><td>Digital 1</td><td>CAM1</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera01</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☒</td><td>Channel</td><td>Camera02</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera03</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera04</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera05</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera06</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera07</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera08</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Digital 10</td><td>HIC6621E-10-3</td><td>Normal</td><td>Planned</td><td></td><td>Yes</td><td>Start</td></tr></tbody></table>	Select	Channel	Camera Name	Resource	Schedule	Store	Planned	Status	☐	Digital 1	CAM1	Normal	Planned		Yes	Start	☐	Channel	Camera01	Normal	Planned		Yes	Start	☒	Channel	Camera02	Normal	Planned		Yes	Start	☐	Channel	Camera03	Normal	Planned		Yes	Start	☐	Channel	Camera04	Normal	Planned		Yes	Start	☐	Channel	Camera05	Normal	Planned		Yes	Start	☐	Channel	Camera06	Normal	Planned		Yes	Start	☐	Channel	Camera07	Normal	Planned		Yes	Start	☐	Channel	Camera08	Normal	Planned		Yes	Start	☐	Digital 10	HIC6621E-10-3	Normal	Planned		Yes	Start
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CAUTION !

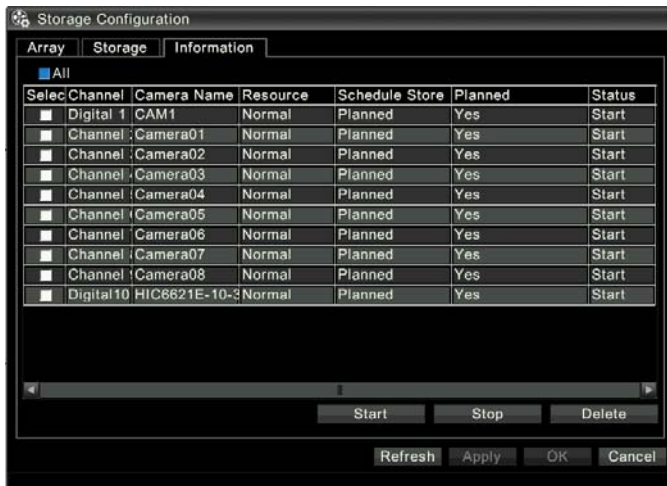
If you click Delete after selecting a camera, the system automatically stops the corresponding storage plan of the channel and deletes the corresponding storage plan and recorded data. Therefore, exercise caution with the deletion operation.

Alarm-Triggered Recording

Alarm-triggered recording is used to trigger camera storage. The storage is triggered by an alarm.

1. Configure camera storage resources according to the power-on wizard, and set the after-alarm recording time according to actual requirements. The after-alarm recording time is the duration of alarm-triggered storage.
2. Configure alarm-triggered storage. For details, refer to [Configuring the Triggered Action](#).

Checking the Channel Recording State

Steps	Screenshot																																																																													
1. Right-click anywhere in the preview interface, and then choose Menu > Storage > Information. The storage information interface is displayed. 2. Check the recording state of each camera in the storage information list. For details about state definitions, see Table 5-1.	 <table><tr><th>Select</th><th>Channel</th><th>Camera Name</th><th>Resource</th><th>Schedule Store</th><th>Planned</th><th>Status</th></tr><tr><td>☐</td><td>Digital 1</td><td>CAM1</td><td>Normal</td><td>Planned</td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera01</td><td>Normal</td><td>Planned</td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera02</td><td>Normal</td><td>Planned</td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera03</td><td>Normal</td><td>Planned</td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera04</td><td>Normal</td><td>Planned</td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera05</td><td>Normal</td><td>Planned</td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera06</td><td>Normal</td><td>Planned</td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera07</td><td>Normal</td><td>Planned</td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Channel</td><td>Camera08</td><td>Normal</td><td>Planned</td><td>Yes</td><td>Start</td></tr><tr><td>☐</td><td>Digital10</td><td>HIC6621E-10-3</td><td>Normal</td><td>Planned</td><td>Yes</td><td>Start</td></tr></table>	Select	Channel	Camera Name	Resource	Schedule Store	Planned	Status	☐	Digital 1	CAM1	Normal	Planned	Yes	Start	☐	Channel	Camera01	Normal	Planned	Yes	Start	☐	Channel	Camera02	Normal	Planned	Yes	Start	☐	Channel	Camera03	Normal	Planned	Yes	Start	☐	Channel	Camera04	Normal	Planned	Yes	Start	☐	Channel	Camera05	Normal	Planned	Yes	Start	☐	Channel	Camera06	Normal	Planned	Yes	Start	☐	Channel	Camera07	Normal	Planned	Yes	Start	☐	Channel	Camera08	Normal	Planned	Yes	Start	☐	Digital10	HIC6621E-10-3	Normal	Planned	Yes	Start
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NOTE !

After configuring the storage plan of a channel according to the power-on wizard, you can also start or stop the storage plan in the configuration interface.

Table 5-1 Definitions of Recording States

Parameter	Description
Resource	• Unknown: No storage resource is allocated. • Normal: Storage resources have been allocated. • Inaccessible: Storage resources are abnormal.
Schedule Store	• Unknown: No storage resource is allocated. • Planned: Storage is performed according to the corresponding storage plan. • Unplanned: Storage is performed outside the storage plan, or problems such as network exceptions or default faults have occurred.

Configuring Storage

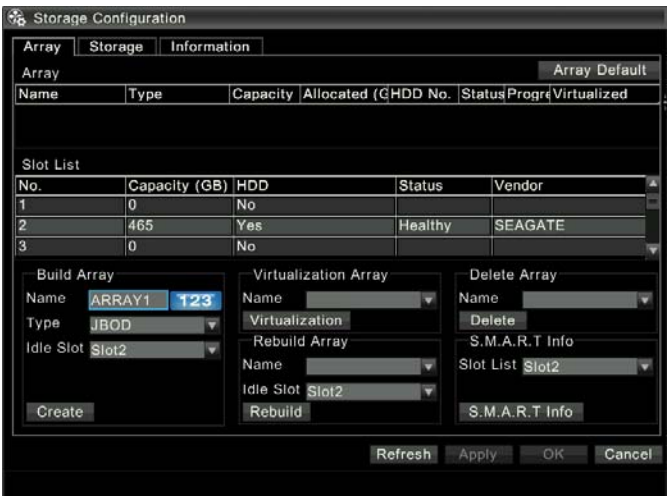
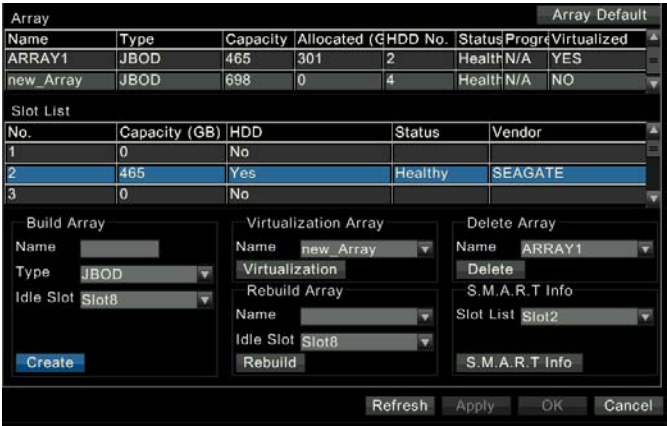
In general, you can perform the recording operation after completing the configuration according to the power-on wizard. If necessary, perform the following steps to change the storage configuration.

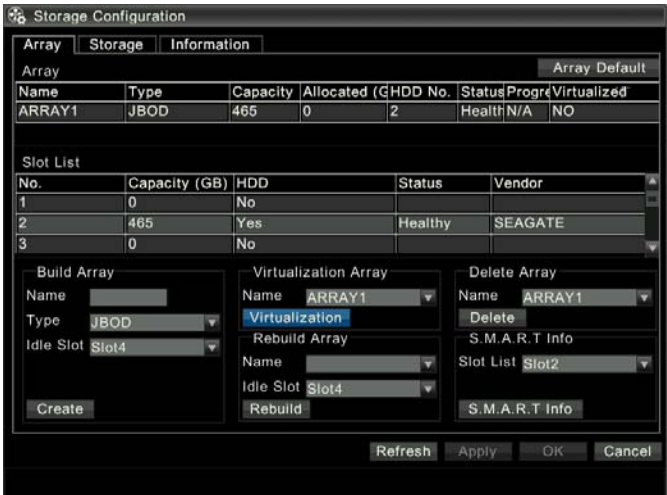
Configuring Arrays

An array is a logical area rebuilt from multiple physical hard disks that are combined in a certain arrangement mode. The use of array helps accomplish more effective storage and management of video recordings. In the array configuration interface, arrays can be created, viewed, rebuilt, deleted, the slot list can be viewed, and the factory default settings of arrays can be restored.

Creating and virtualizing an array

It is not recommended that you perform any device configuration operation when creating an array.

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Storage > Array. The array configuration interface is displayed.	
2. Create an array. In the Build Array area, enter the array name, select the array type and the idle slot, and then click Create. The array newly created appears in the array list.  NOTE ! The system (except DVR 200 series) supports the disk hot-spare function. It is recommended that you reserve idle disks when creating an RAID array, so that the system automatically starts an idle disk of the same capacity to rebuild the array when a certain disk of the array is damaged.	

Steps	Screenshot
3. Virtualize the array. Before putting an array into use, you need to virtualize the array. Specifically, select the array from the Virtualization Array area, and then click Virtualization.  NOTE ! It takes a while to virtualize an array. Wait patiently. After the virtualization is complete, the Virtualized column of the array is displayed as Yes in the array list. The virtualized array can be used for storage configuration.	



NOTE !

The types of arrays are described as follows:

- **JBOD:** JBOD allows multiple hard disks to be accessible as one logical volume. The use of JBOD increases the access speed and utilization of the hard disks, but it offers lower level of reliability because the array cannot operate properly when any of the arrayed disks fails.. In addition, only one JBOD array can be built with one hard disk.
- **RAID1:** Data redundancy is implemented by hard disk data mirroring, and data that backs up each other is generated on hard disks in pairs. RAID1 ensures the availability and recoverability of user data to the utmost extent. It is slow to build an RAID1 array. One RAID1 array can be built with only two hard disks of the same capacity.
- **RAID5:** Multiple hard disks are combined into a striped array with parity check. RAID5 has data redundancy. When one hard disk of an RAID5 array is damaged, the array can still work properly, thereby ensuring the reliability of data storage. To create an RAID5 array, you need at least three hard disks of the same capacity. DVR200 series does not support RAID5.

Checking an array and the slot list

You can check an array list for information about the array in which a hard disk resides, and check a slot list for information about the physical hard disk corresponding to each slot. Select a slot list from the **S.M.A.R.T. Info** area, and then click **S.M.A.R.T. Info** to check the running status of the hard disk corresponding to the slot.

Rebuilding an array

When one hard disk of an RAID1 or RAID5 is damaged, the array information status bar indicates that the status is **Degrade**. In this case, you need to rebuild the array, so that a new hard disk can replace the faulty hard disk and the array can be restored.

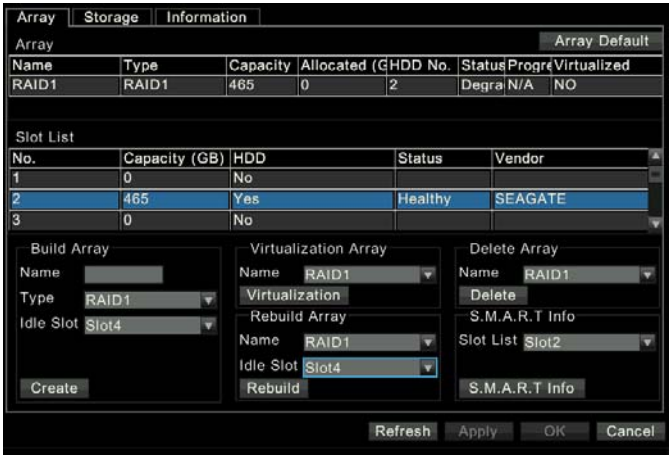


NOTE !

Only RAID1 and RAID5 arrays can be rebuilt.

Ensure that the new hard disk used to replace the faulty hard disk has the same capacity as the hard disk to be replaced.

If the volume of data in the array to be rebuilt is relatively large, it takes a long time to rebuild the array. Please wait patiently.

Steps	Screenshot
- Right-click anywhere in the preview interface, and then choose Menu > Storage > Array. The array configuration interface is displayed. - Rebuilt an array. - In the Rebuild Array area, select the array to be rebuilt and the idle slot. - Click Rebuild and confirm the operation. The array is rebuilt.	

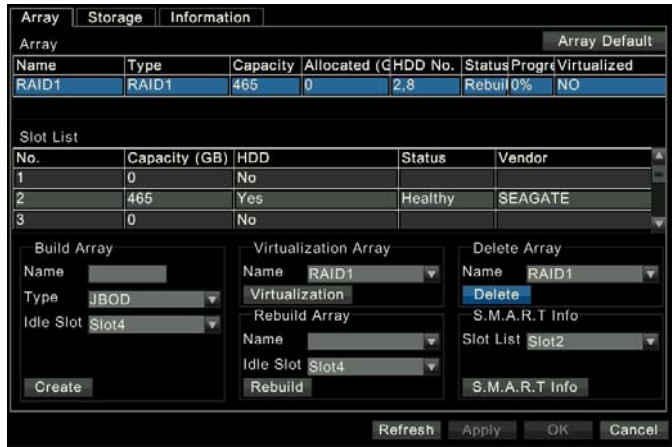


NOTE !

When an array is being rebuilt, the array list shows the rebuilding state and the current rebuilding progress. When the array is successfully rebuilt, the status is displayed as **Healthy**.

Deleting an array

Before deleting an array, delete all storage resources related to the array at first. For details, refer to [Deleting Storage Resources](#).

Steps	Screenshot
- Right-click anywhere in the preview interface, and then choose Menu > Storage > Array. The array configuration interface is displayed. - Delete an array. In the Delete Array area, select the array to be deleted. Then click Delete, and confirm the deletion operation. The selected array is deleted.	

Restoring the factory settings of arrays

Only the user **admin** can restore the factor settings of arrays.



CAUTION !

If you restore the factory settings of arrays, storage resources allocated to related hard disks and corresponding configuration files will be deleted. Therefore, exercise caution with this operation. To perform the storage operation after restoring the factory settings of the arrays, delete the storage resources of the camera at first and then reconfigure storage resources. For details, refer to [Deleting Storage Resources](#) and [Configuring Storage Resources](#).

Steps	Screenshot
- Right-click anywhere in the preview interface, and then choose Menu > Storage > Array. The array configuration interface is displayed. - Restore the factory settings of the arrays. Click Restore Array Factory Settings, and then confirm the operation.	

Configuring Storage Resources

Steps	Screenshot
- Right-click anywhere in the preview interface, and then choose Menu > Storage > Storage. The Storage Configuration interface is displayed. - Configure storage resources. Select a channel, and configure storage resource parameters. For details about important parameters, see Table 2-1.	

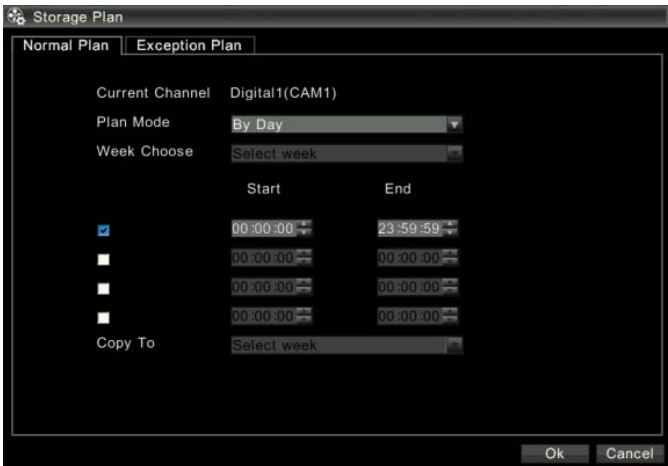


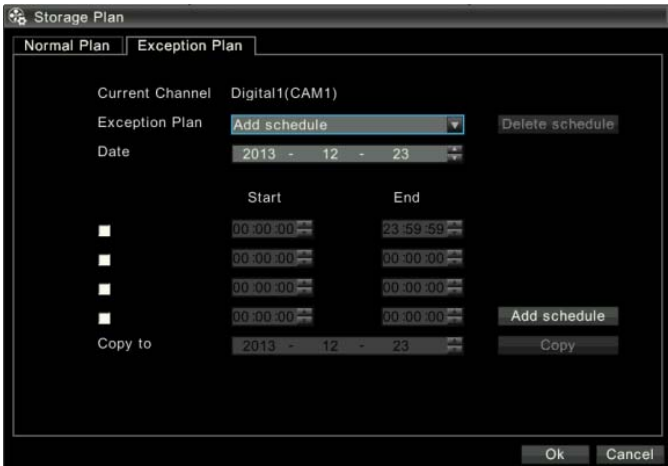
NOTE !

You can expand but cannot decrease a successfully allocated storage space. If a decrease of a storage space is really necessary, delete the storage resources of the camera first and then reallocate the storage space as required.

Configuring Storage Plans

After you have made a storage plan for a camera, the camera can store recordings according to the storage plan. Before configuring the storage plan, configure storage resources for the camera at first. For details, refer to [Configuring Storage Resources](#).

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Storage > Storage. The Storage Configuration interface is displayed. 2. Make a storage plan. 1) Select a channel for which a storage plan needs to be configured, and click Storage Plan. The storage plan configuration interface is displayed.	
2) Configure normal plans and exception plans. The figure on the right shows the interface for configuring a normal plan.	

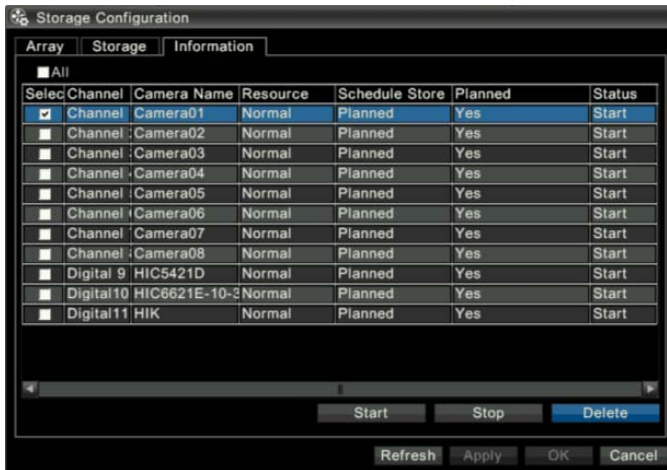
Steps	Screenshot
The figure on the right shows the interface for configuring an exception plan. On the day specified in an exception plan, the storage will be executed only in the specified exception time segments. On the other days, the normal plan will be executed. - After configuring the parameters of the exception plan, click Add schedule to add the exception plan to the Exception Plan drop-down list box. - To delete an exception plan, select the plan from the Exception Plan drop-down list box and then click Delete schedule.	

Deleting Storage Resources



CAUTION !

After you delete storage resources, the storage plans and recorded data of the camera are also deleted. Therefore, exercise caution with the deletion operation.

Steps	Screenshot
- Right-click anywhere in the preview interface, and then choose Menu > Storage > Information. The storage information interface is displayed. - Delete storage resources. Select one or more channels for which storage resources need to be deleted from the channel list. Then click Delete, and confirm the deletion operation.	

6 Playback

Instant Playback

This function is used to replay the video recording of the last five minutes.

Before performing instant playback, verify that the camera has stored the videos recorded within five minutes before the current time point.

Steps	Screenshot
On the preview interface, select the pane where the video is to be played back, and click the Instant Playback icon to start playback.	

Video Playback

This function is used to play videos stored in the hard disk(s) of the device on a pane.

Before you use this function, verify that the corresponding camera has recorded videos.

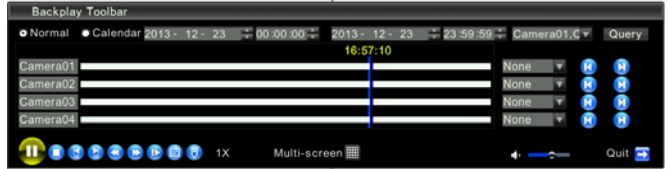
Steps	Screenshot
1. Right-click a pane in the preview interface. A menu is displayed. Choose Playback . The video playback interface is displayed.	
2. Query a video. 1) Select a channel to be queried, and set the start time and end time. 2) Click Query . If the channel has recorded videos, a query result is displayed in the playback toolbar. For details about the query result, see Table 6-1 in Backplay Toolbar .	

Steps	Screenshot
3) Play a video. Click Play. By default, the device starts playing the video from the beginning. You can set the start point by moving the slider and then clicking Play.  NOTE ! You can perform other operations through the playback toolbar, such as Play by Frame, Fast Forward, Fast Rewind, and skip play by clicking and dragging the slider on the play progress bar. For details, see Table 6-1 in Backplay Toolbar.	

Synchronous Playback

This function is used to play recorded videos captured by multiple cameras in the same time period so that you can comprehensively collect and analyze information for this period of time.

Before performing synchronous playback, verify that the corresponding cameras have video resources.

Steps	Screenshot
1. Right-click a pane in the preview interface. A menu is displayed. Choose Playback. The video playback interface is displayed.	
2. Query videos. Select multiple channels to be queried, set the start time and end time, and click Query.	
3. Play videos. Click Play. The videos of these channels are played synchronously.  NOTE ! You can perform other operations through the playback toolbar, such as Play by Frame, Fast Forward, and Fast Rewind for the videos, and skip play by clicking and dragging the slider on the play progress bar. For details, see Table 6-1 in Backplay Toolbar.	

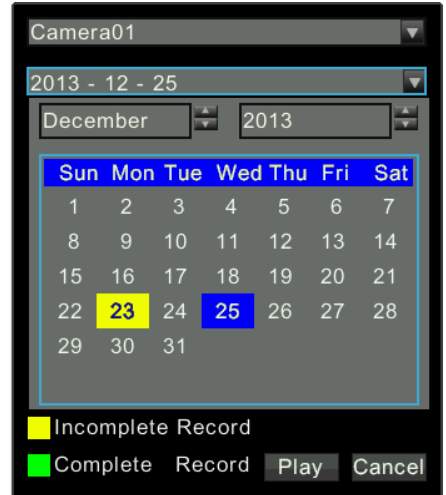


NOTE !

- During synchronous playback, the system automatically selects the fewest split screens according to the current number of playback channels. For example, if 1 channel is selected, 1 split screen is displayed; if 2 to 4 channels are selected, 4 split screens are displayed, and so on.
- If you use the mouse to double-click a window or use the remote control to select a pane and then click **Full Screen** during synchronous playback, the chosen window or pane is switched to full-screen mode, or the full-screen window or pane is restored to multi-division mode.

Checking Video State

This function allows you to check the recording situation of a date selected from the calendar.

Steps	Screenshot
1. Right-click a pane in the preview interface. A menu is displayed. Choose Playback . The video playback interface is displayed.	
2. Query videos. Select Calendar . The calendar interface is displayed. Select the camera and date to be queried. The selected date is highlighted in blue.	
3. Play videos. Click Play . The recording time axis displays the recording situation of the selected date.	-



NOTE !

- Ensure that the selected camera has video resources.
- If the camera has storage resources and the recording time reaches 24 hours, the time box is highlighted in green.
- If the camera has storage resources and the actual recording time is shorter than 24 hours, the time box is highlighted in yellow.
- If the camera does not record any video in 24 hours, the time box is not highlighted.

Backplay Toolbar

Figure 6-1 Backplay Toolbar

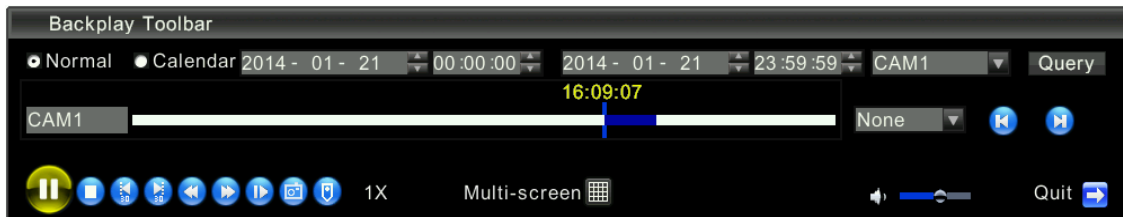
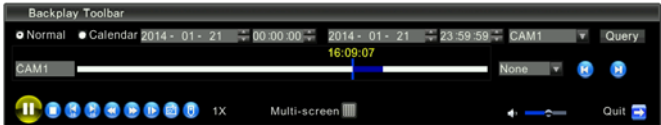


Table 6-1 Description of Backplay Toolbar Parameters

Button/Icon	Description
Normal	If you select this mode, you need to enter the start and end times and the start and end dates. Videos recorded during the specified period will be replayed.
Calendar	If you select this mode, you need to select the start and end dates from the calendar. Videos recorded during the specified period will be replayed.
Query time	Enters the start time and end time. You can make the query across multiple days. The start time must be earlier than the end time.
Channel selection	Selects one or more channels to be queried, which are displayed as camera names.
Query	Queries video resources stored on the selected channels.
	Displays the current play progress. Note: <i>If you drag the slider on the play progress bar to a new position during playback, the video is directly played from the slider position.</i>
	Adjusts the volume of the channel on the current pane.
	Goes to the previous or next video. Note: <i>This button does not exist in synchronous playback.</i>
	Goes forward or backward at a multi-time rate.
	Plays the video or pauses the play.
	Stops playing.
	Plays by frame or stops playing by frame.
	Exits from the playback toolbar.
Rate of fast forward or fast rewind	A negative value indicates the rewind rate, and a positive value indicates the forward rate.

Button/Icon	Description
	Captures images on the current pane.
 (Multi-division mode)	back to the screen splitting mode (3, 5, or 7 panes in corridor mode). Note: <i>After the screen splitting mode is switched to the corridor mode, you can use the mouse to drag the images to the panes.</i>

Playback Capture

Steps	Screenshot
On the playback interface, click  on the playback toolbar. The image of the current pane is saved to the USB flash drive.	



NOTE !

Name of a captured image file: username (camera name) and current recording time_record.jpg.

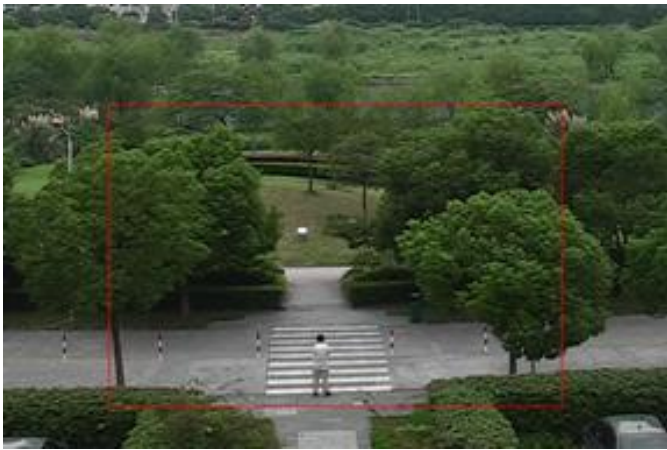
For example, admin (Camera 2)20130320(09-15-12-002)_record.jpg indicates the image captured by the user admin at 09:15:12 on March 20, 2013, where 002 indicates that it is the second picture captured at 09:15:12.

Digital Zoom

You can partially zoom in the image on the current pane according to a certain scale, so as to better view image details.

To zoom in, perform the following steps:

Steps	Screenshot
Access the digital zoom interface. , Right-click anywhere in the playback interface. A shortcut menu is displayed. Choose Digital Zoom. The digital zoom interface is displayed.	

Steps	Screenshot
2. Identify the area to be zoomed in. Hold and drag the left button of the mouse to draw a rectangular frame to be zoomed in.	
3. Zoom in the display. Release the left button of the mouse. The selected area is zoomed in.  NOTE ! <i>Right-click the zoomed-in area to restore the area to the state before zooming in, or repeat steps and to zoom in other areas.</i>	
4. Exit from the digital zoom interface. Right-click anywhere in the playback interface of a normal size, and then choose Exit to end the digital zoom operation.	

7 Backup

Video backup is implemented by querying videos stored in the hard disk of the device through the man-machine interface and then backing up videos as files to a USB storage device.

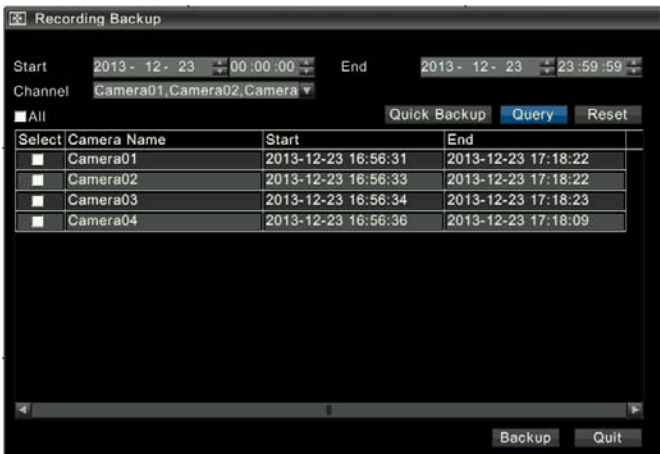


NOTE !

During video query, a video list displays a maximum of 200 records. If there are more than 200 query records, you need to reset the query channel and query time.

Prerequisites

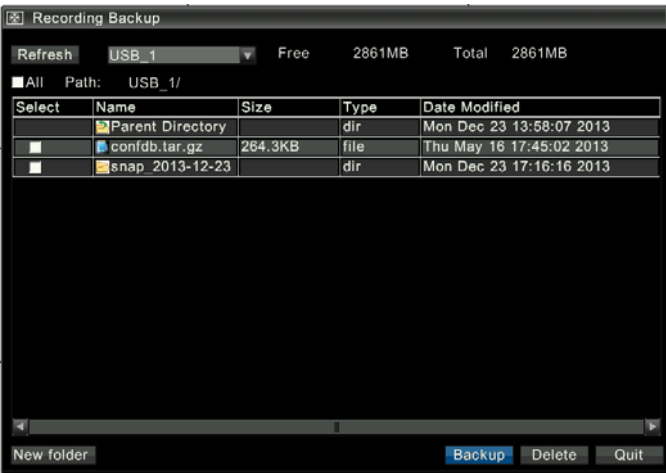
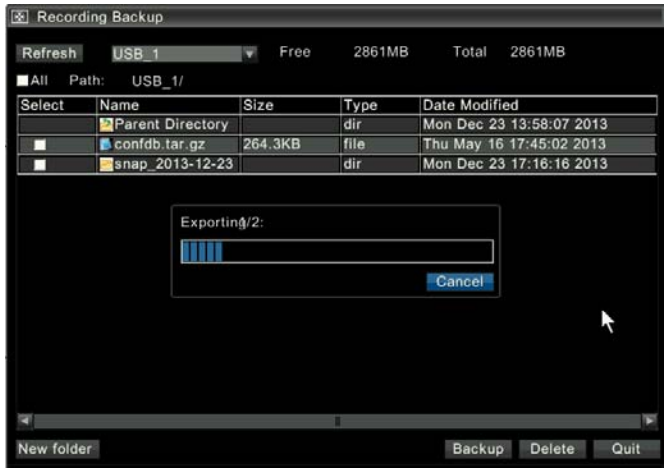
- The USB storage device is partitioned and formatted as the FAT32 file system, and properly connected to the device.
- You have the video playback permission.
- The hard disk of the device has stored videos.

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Recording . The Recording Backup interface is displayed. 2. Query videos. Select one or more channels whose videos are to be queried. Enter the start time and end time, and then click Query. Query results are displayed. 3. Select the video to be backed up. Select one or more videos to be backed up and click Backup. The Recording Backup interface is displayed.	



NOTE !

Select the channel, enter the start time and end time, and click **Quick Backup**. The **Recording Backup** interface is directly displayed. By default, all the videos on the selected channel in the specific period of time are backed up.

Steps	Screenshot
4. Select a backup path. Select a partition of the mounted USB storage device from the USB drop-down list box. Select a folder, or double-click the mouse to enter a directory and then select a folder.	 The screenshot shows the 'Recording Backup' window with a table of files in the USB_1/ directory. The table has columns for 'Select', 'Name', 'Size', 'Type', and 'Date Modified'. The files listed are 'Parent Directory' (dir, Mon Dec 23 13:58:07 2013), 'confdb.tar.gz' (file, 264.3KB, Thu May 16 17:45:02 2013), and 'snap_2013-12-23' (dir, Mon Dec 23 17:16:16 2013). At the bottom, there are buttons for 'New folder', 'Backup', 'Delete', and 'Quit'.
5. Back up videos. Click Backup to back up videos.  NOTE ! <i>During backup, the progress bar prompts "Backing up X/Y:", where X specifies which video is being backed up, and Y specifies the total number of videos to be backed up. In this process, you can click Cancel to stop backup.</i>	 The screenshot shows the 'Recording Backup' window with the same file list as above. A progress bar is visible in the center, labeled 'Exporting 2/2:'. Below the progress bar is a 'Cancel' button. At the bottom, there are buttons for 'New folder', 'Backup', 'Delete', and 'Quit'.



NOTE !

- If the duration of the video is less than half an hour, the device saves the video as one file; if the duration is longer than half an hour, the device splits the video by half an hour and saves them as different video files.
- The video backup file is named as follows: Camera Name-Recording Start Time-Recording End Time-Random Value. File Format, such as camera01-20121222000000-20121223103000-719885386.ts.
- Click Refresh to display the available capacity and whole data volume in the current partition of the USB storage device.
- You can create or delete a folder in the USB storage device. For details, refer to [Creating a USB Flash Drive Folder](#) or [Deleting a USB Flash Drive File or Folder](#).

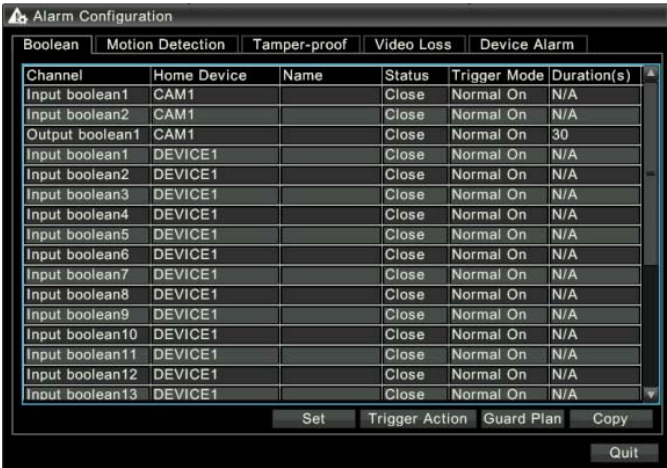
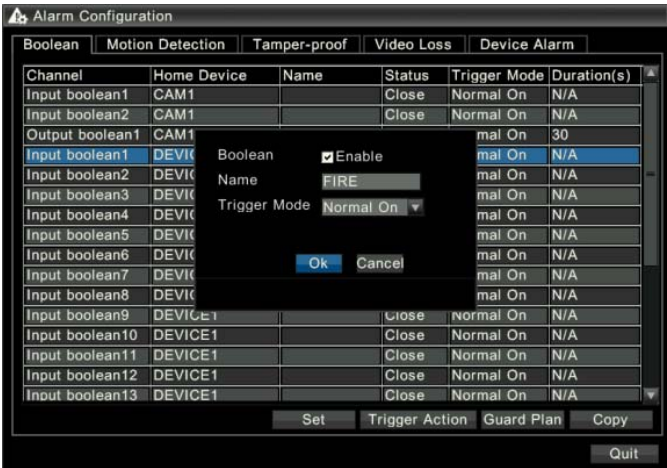
8 Alarm

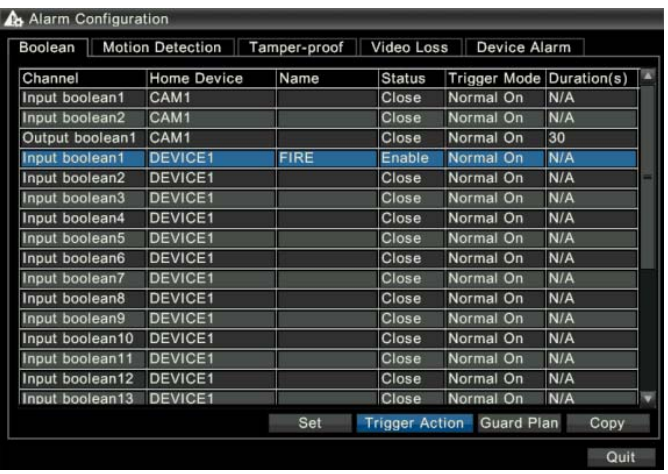
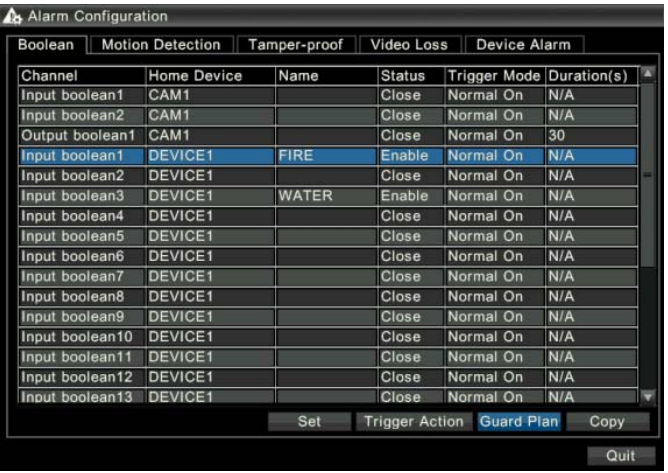
After logging in to the system, you can configure alarm type parameters, set valid alarm reporting time through guard plan configuration, and associate triggered alarms with one or more actions on the alarm configuration interface, so as to handle valid alarms and associated actions in time.

Configuring the Alarm Type

Boolean Alarm

Set the Boolean alarm and configure the guard plan for the device according to site requirements.

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Alarm > Boolean. The Boolean interface is displayed.	
2. Enable and configure Boolean inputs Double-click a Boolean input item, or select a Boolean input item and then click the Set button. Enable it and configure its name and triggering mode. For parameter description, see Table 8-1. Then click Ok to finish the Boolean input configuration.	

Steps	Screenshot
3. Enable and configure Boolean outputs. Double-click a Boolean output item, or select a Boolean output item and then click the Set button. Enable it and configure its name, triggering mode, and duration. For parameter description, see Table 8-1. Then click Ok to finish the Boolean output configuration.	
4. Select a Boolean item for alarm triggering configuration and click Trigger Action. For details, refer to Configuring the Triggered Action.	
5. Click Guard Plan and configure a specific guard plan. For details, refer to Configuring the Guard Plan.	

Steps	Screenshot
6. Replicate Boolean alarm configuration. To replicate the alarm configuration of a local Boolean item to another Boolean item, select the local Boolean item, and click Copy. A dialog box is displayed. Select Tri-action and/or Guard Plan on the displayed dialog box to replicate relevant alarm configuration to another channel. Note that the Boolean item corresponding to that channel also needs to be enabled. Then click Ok to finish the replication.	 The top screenshot shows the 'Alarm Configuration' dialog box with the 'Boolean' tab selected. It contains a table with columns: Channel, Home Device, Name, Status, Trigger Mode, and Duration(s). The table lists 13 channels, with 'Input boolean1' through 'Input boolean13' all set to 'DEVICE1' and 'Normal On'. The 'Copy' button is highlighted in blue. The bottom screenshot shows the same dialog box, but with a 'Copy Option' dialog box overlaid. This dialog box has two checkboxes: 'Tri-action' and 'Guard Plan', both of which are checked. It also has a 'Copy To' dropdown menu set to 'Select channel' and 'Ok' and 'Cancel' buttons.

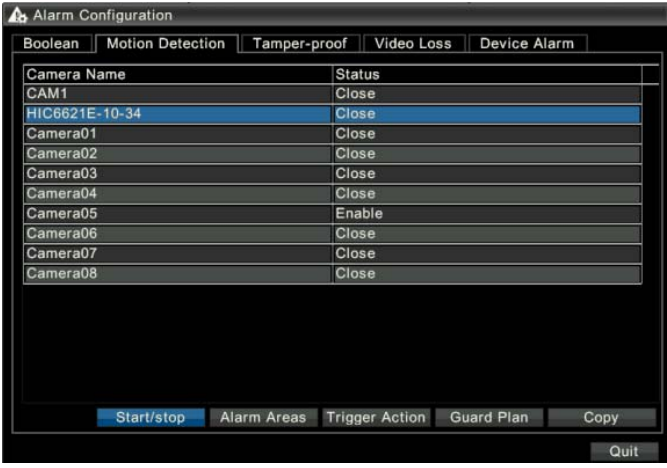
Table 8-1 Description of Boolean Configuration Parameters

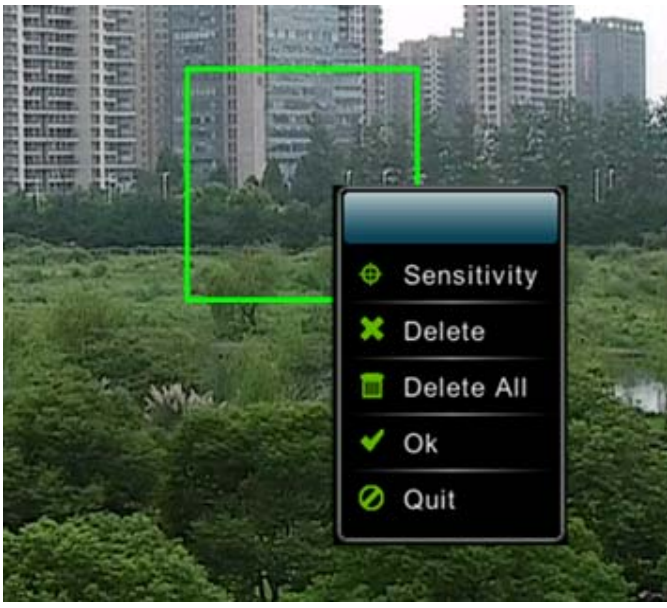
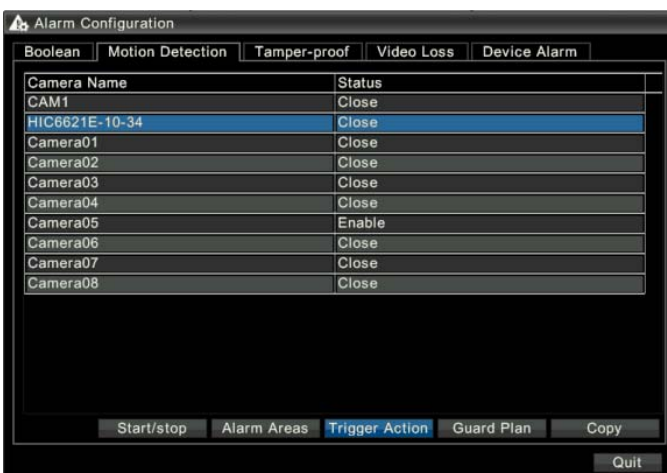
Parameter	Description
Triggering mode	Normal On: The Boolean item is a low-level alarm. Normal Off: The Boolean item is a high-level alarm. Note: <i>The parameter value must match the external third-party Boolean input device. For example, you must set the parameter to Normal On for a normally-on Boolean input device; otherwise, the device cannot normally receive Boolean information.</i>

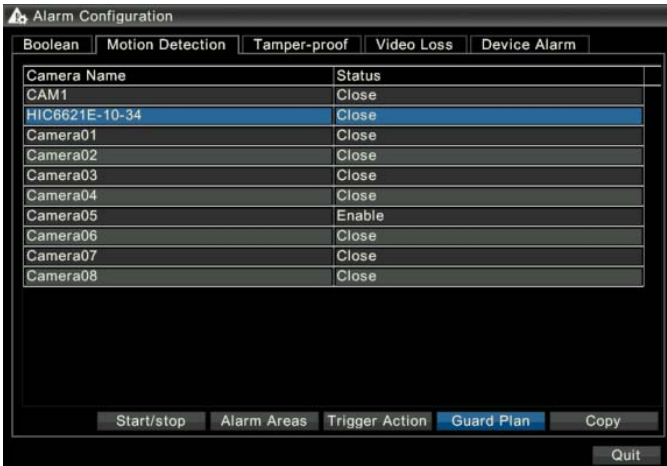
Motion Detection Alarm

This function allows you to set a motion detection area for video images of a camera. When an object in the detection area moves to a certain extent, the device generates an alarm.

After this function is enabled, you need to set an alarm area and alarm sensitivity and configure the guard plan as required. Otherwise, alarms cannot be reported.

Steps	Screenshot																						
1. Right-click anywhere in the preview interface, and then choose Menu > Alarm > Motion Detection. The motion detection alarm configuration interface is displayed.	 The screenshot shows the 'Alarm Configuration' window with the 'Motion Detection' tab selected. It contains a table with two columns: 'Camera Name' and 'Status'. The table lists cameras from CAM1 to Camera08. Camera05 is the only one with a status of 'Enable', while all others are 'Close'. Below the table are buttons for 'Start/stop', 'Alarm Areas', 'Trigger Action', 'Guard Plan', 'Copy', and 'Quit'. <table border="1"><thead><tr><th>Camera Name</th><th>Status</th></tr></thead><tbody><tr><td>CAM1</td><td>Close</td></tr><tr><td>HIC6621E-10-34</td><td>Close</td></tr><tr><td>Camera01</td><td>Close</td></tr><tr><td>Camera02</td><td>Close</td></tr><tr><td>Camera03</td><td>Close</td></tr><tr><td>Camera04</td><td>Close</td></tr><tr><td>Camera05</td><td>Enable</td></tr><tr><td>Camera06</td><td>Close</td></tr><tr><td>Camera07</td><td>Close</td></tr><tr><td>Camera08</td><td>Close</td></tr></tbody></table>	Camera Name	Status	CAM1	Close	HIC6621E-10-34	Close	Camera01	Close	Camera02	Close	Camera03	Close	Camera04	Close	Camera05	Enable	Camera06	Close	Camera07	Close	Camera08	Close
Camera Name	Status																						
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HIC6621E-10-34	Close																						
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Camera05	Enable																						
Camera06	Close																						
Camera07	Close																						
Camera08	Close																						
2. Start the motion detection alarm function. Select a target camera and click Start/Stop to start the motion detection alarm function.	 This screenshot is identical to the previous one, but the row for 'HIC6621E-10-34' is highlighted in blue. Additionally, the 'Start/stop' button at the bottom is highlighted in blue, indicating it has been selected. <table border="1"><thead><tr><th>Camera Name</th><th>Status</th></tr></thead><tbody><tr><td>CAM1</td><td>Close</td></tr><tr><td>HIC6621E-10-34</td><td>Close</td></tr><tr><td>Camera01</td><td>Close</td></tr><tr><td>Camera02</td><td>Close</td></tr><tr><td>Camera03</td><td>Close</td></tr><tr><td>Camera04</td><td>Close</td></tr><tr><td>Camera05</td><td>Enable</td></tr><tr><td>Camera06</td><td>Close</td></tr><tr><td>Camera07</td><td>Close</td></tr><tr><td>Camera08</td><td>Close</td></tr></tbody></table>	Camera Name	Status	CAM1	Close	HIC6621E-10-34	Close	Camera01	Close	Camera02	Close	Camera03	Close	Camera04	Close	Camera05	Enable	Camera06	Close	Camera07	Close	Camera08	Close
Camera Name	Status																						
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HIC6621E-10-34	Close																						
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Camera04	Close																						
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Camera06	Close																						
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Camera08	Close																						

Steps	Screenshot																						
3. Configure the motion detection area. 1) Click Alarm Areas to enter the channel preview status. 2) Hold the left button of the mouse and drag the mouse to draw a rectangular frame to set one or more valid areas. 3) Select an area and click the right button of the mouse to set the sensitivity, of the current area or perform other operations. 4) Click Ok to save the configuration and return to the Motion Detection interface under Alarm Configuration.  NOTE ! <i>The higher the sensitivity, the higher the level. The camera can detect subtle changes in the area. When the degree of a change in the area exceeds the object size and the duration is longer than the preset duration, an alarm is reported.</i>																							
4. Configure alarm triggering. Select a Boolean item for alarm triggering configuration and click Trigger Action. For details, refer to Configuring the Triggered Action.	 <table border="1"><thead><tr><th>Camera Name</th><th>Status</th></tr></thead><tbody><tr><td>CAM1</td><td>Close</td></tr><tr><td>HIC6621E-10-34</td><td>Close</td></tr><tr><td>Camera01</td><td>Close</td></tr><tr><td>Camera02</td><td>Close</td></tr><tr><td>Camera03</td><td>Close</td></tr><tr><td>Camera04</td><td>Close</td></tr><tr><td>Camera05</td><td>Enable</td></tr><tr><td>Camera06</td><td>Close</td></tr><tr><td>Camera07</td><td>Close</td></tr><tr><td>Camera08</td><td>Close</td></tr></tbody></table>	Camera Name	Status	CAM1	Close	HIC6621E-10-34	Close	Camera01	Close	Camera02	Close	Camera03	Close	Camera04	Close	Camera05	Enable	Camera06	Close	Camera07	Close	Camera08	Close
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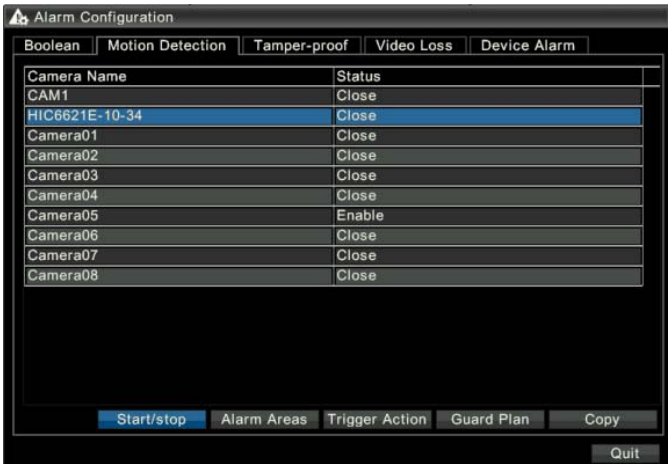
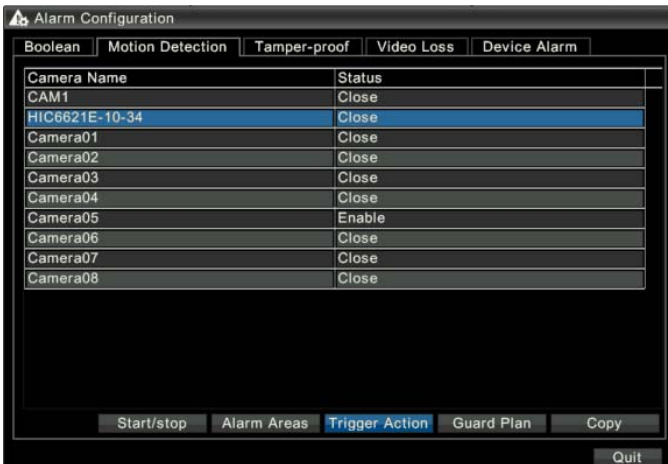
Steps	Screenshot
5. Configure the guard plan. Click Guard Plan and configure a specific guard plan. For details, refer to Configuring the Guard Plan.	

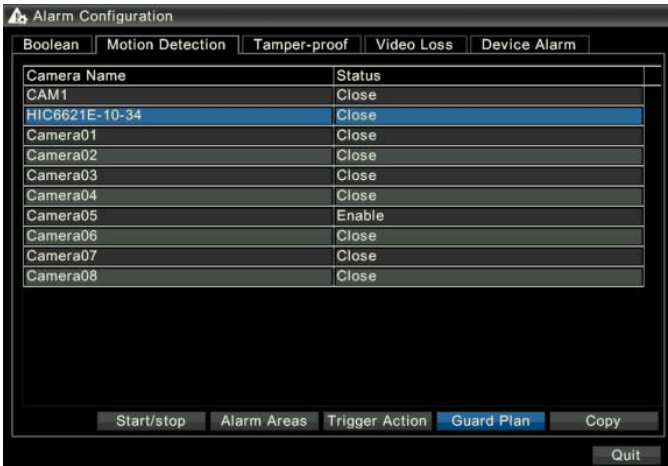
Occlusion Detection Alarm

The device generates an alarm when the tamper-proof area you set for video images of a camera is blocked.

When the occlusion detection alarm function is enabled, you need to set an alarm area and alarm sensitivity, and configure the guard plan as required; otherwise, alarms cannot be reported.

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Alarm > Tamper-proof. The occlusion detection alarm interface is displayed.	

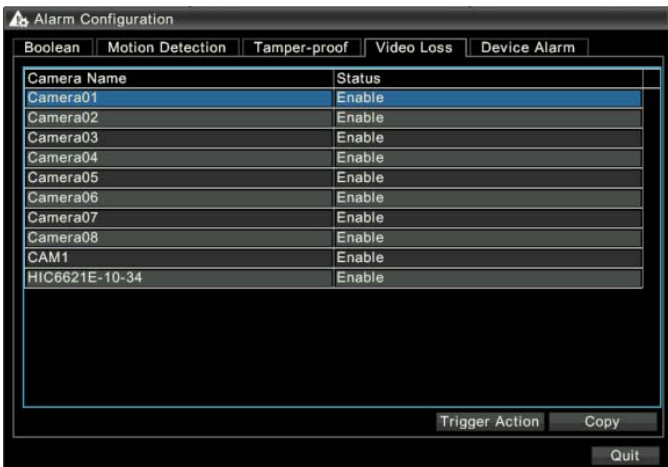
Steps	Screenshot																						
2. Enable the occlusion detection function. Select a target camera and click Start/Stop to enable the occlusion detection alarm function.	 <table border="1"> <thead> <tr> <th>Camera Name</th> <th>Status</th> </tr> </thead> <tbody> <tr><td>CAM1</td><td>Close</td></tr> <tr><td>HIC6621E-10-34</td><td>Close</td></tr> <tr><td>Camera01</td><td>Close</td></tr> <tr><td>Camera02</td><td>Close</td></tr> <tr><td>Camera03</td><td>Close</td></tr> <tr><td>Camera04</td><td>Close</td></tr> <tr><td>Camera05</td><td>Enable</td></tr> <tr><td>Camera06</td><td>Close</td></tr> <tr><td>Camera07</td><td>Close</td></tr> <tr><td>Camera08</td><td>Close</td></tr> </tbody> </table>	Camera Name	Status	CAM1	Close	HIC6621E-10-34	Close	Camera01	Close	Camera02	Close	Camera03	Close	Camera04	Close	Camera05	Enable	Camera06	Close	Camera07	Close	Camera08	Close
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Camera06	Close																						
Camera07	Close																						
Camera08	Close																						
3. Configure a motion detection area. 1) Click Alarm Areas to enter the channel preview state. 2) Hold the left button of the mouse and drag the mouse to draw a rectangular frame as a valid area. The default valid area of the system is the full screen. 3) Select an area and right-click it to set the sensitivity of the area or perform other operations. 4) Click Ok. The occlusion detection alarm interface is displayed.																							
4. Configure the alarm-triggered action. Click Trigger Action. For details, refer to Configuring the Triggered Action.	 <table border="1"> <thead> <tr> <th>Camera Name</th> <th>Status</th> </tr> </thead> <tbody> <tr><td>CAM1</td><td>Close</td></tr> <tr><td>HIC6621E-10-34</td><td>Close</td></tr> <tr><td>Camera01</td><td>Close</td></tr> <tr><td>Camera02</td><td>Close</td></tr> <tr><td>Camera03</td><td>Close</td></tr> <tr><td>Camera04</td><td>Close</td></tr> <tr><td>Camera05</td><td>Enable</td></tr> <tr><td>Camera06</td><td>Close</td></tr> <tr><td>Camera07</td><td>Close</td></tr> <tr><td>Camera08</td><td>Close</td></tr> </tbody> </table>	Camera Name	Status	CAM1	Close	HIC6621E-10-34	Close	Camera01	Close	Camera02	Close	Camera03	Close	Camera04	Close	Camera05	Enable	Camera06	Close	Camera07	Close	Camera08	Close
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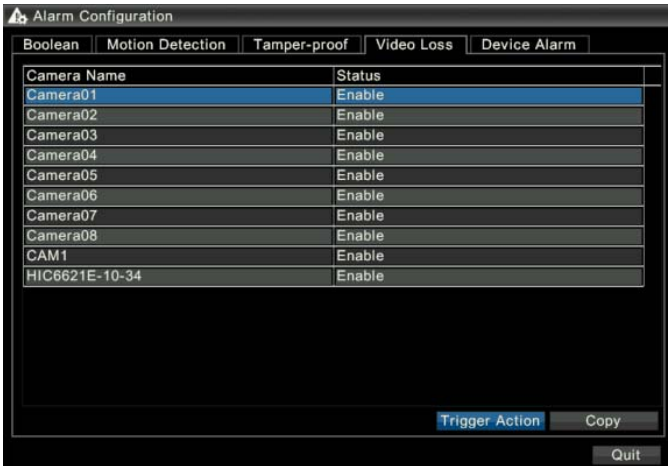
Steps	Screenshot
5. Configure the guard plan. Click Guard Plan to configure the specific guard plan. For details, refer to Configuring the Guard Plan.	

Video Loss Alarm

A video loss alarm is generated when video signals of a channel are lost, so that you can handle the alarm in time.

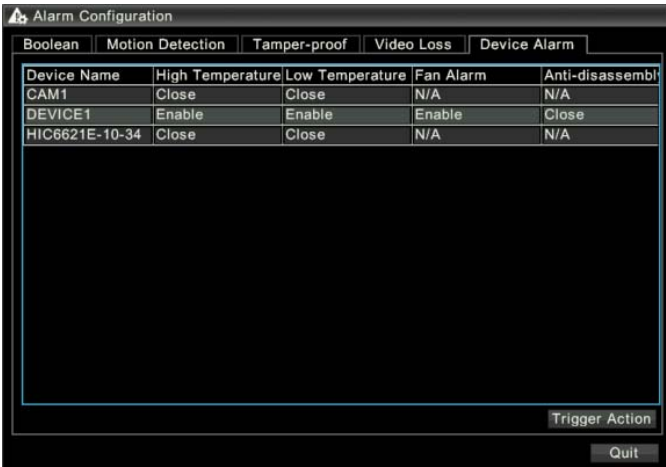
The video loss alarm function can work around the clock without relying on any guard plan.

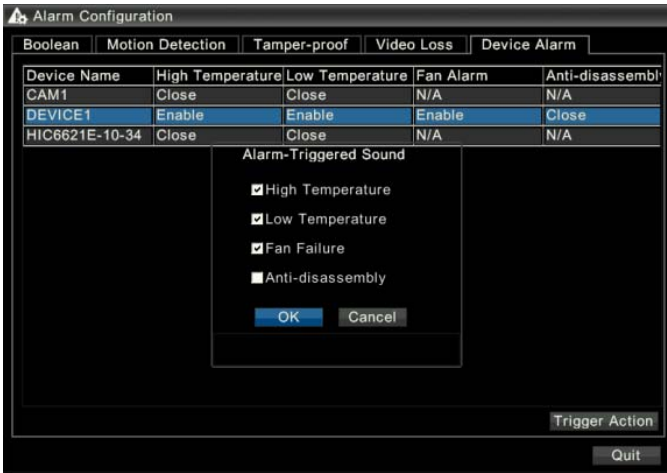
Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Alarm > Video Loss. The Video Loss interface is displayed. 2. Select a channel for which the video loss alarm function needs to be configured.	

Steps	Screenshot																						
3. Configure the alarm-triggered function. Click Trigger Action. For details, refer to Configuring the Triggered Action.	 <table border="1"> <thead> <tr> <th>Camera Name</th><th>Status</th></tr> </thead> <tbody> <tr><td>Camera01</td><td>Enable</td></tr> <tr><td>Camera02</td><td>Enable</td></tr> <tr><td>Camera03</td><td>Enable</td></tr> <tr><td>Camera04</td><td>Enable</td></tr> <tr><td>Camera05</td><td>Enable</td></tr> <tr><td>Camera06</td><td>Enable</td></tr> <tr><td>Camera07</td><td>Enable</td></tr> <tr><td>Camera08</td><td>Enable</td></tr> <tr><td>CAM1</td><td>Enable</td></tr> <tr><td>HIC6621E-10-34</td><td>Enable</td></tr> </tbody> </table>	Camera Name	Status	Camera01	Enable	Camera02	Enable	Camera03	Enable	Camera04	Enable	Camera05	Enable	Camera06	Enable	Camera07	Enable	Camera08	Enable	CAM1	Enable	HIC6621E-10-34	Enable
Camera Name	Status																						
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HIC6621E-10-34	Enable																						

Device Alarm

Device alarm, including temperature alarm, fan failure alarm, and anti-disassembly alarm, can work around the clock without relying on any guard plan. Device alarms can be associated with audible alarms only.

Steps	Screenshot																				
1. Right-click anywhere in the preview interface, and then choose Menu > Alarm > Device Alarm. The Device Alarm interface is displayed.	 <table><thead><tr><th>Device Name</th><th>High Temperature</th><th>Low Temperature</th><th>Fan Alarm</th><th>Anti-disassembly</th></tr></thead><tbody><tr><td>CAM1</td><td>Close</td><td>Close</td><td>N/A</td><td>N/A</td></tr><tr><td>DEVICE1</td><td>Enable</td><td>Enable</td><td>Enable</td><td>Close</td></tr><tr><td>HIC6621E-10-34</td><td>Close</td><td>Close</td><td>N/A</td><td>N/A</td></tr></tbody></table>	Device Name	High Temperature	Low Temperature	Fan Alarm	Anti-disassembly	CAM1	Close	Close	N/A	N/A	DEVICE1	Enable	Enable	Enable	Close	HIC6621E-10-34	Close	Close	N/A	N/A
Device Name	High Temperature	Low Temperature	Fan Alarm	Anti-disassembly																	
CAM1	Close	Close	N/A	N/A																	
DEVICE1	Enable	Enable	Enable	Close																	
HIC6621E-10-34	Close	Close	N/A	N/A																	

Steps	Screenshot
2. Enable the corresponding audible alarm. Select the device for which the audible alarm needs to be configured and click Trigger Action. A dialog box is displayed. Select specific types of device alarms, and then click OK. For different models, the displayed parameters may be different, so refer to the actual interface for the specific parameters.	



NOTE !

Device alarm, including fan failure alarm (not available for DVR200), temperature alarm, and anti-disassembly alarm (not available for DVR200), are deployed around the clock and cannot be withdrawn. Alarms will be reported when the corresponding alarm functions are enabled.

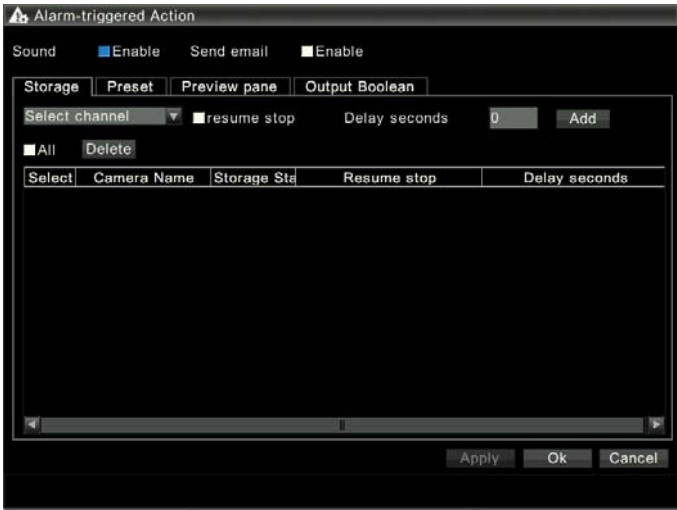
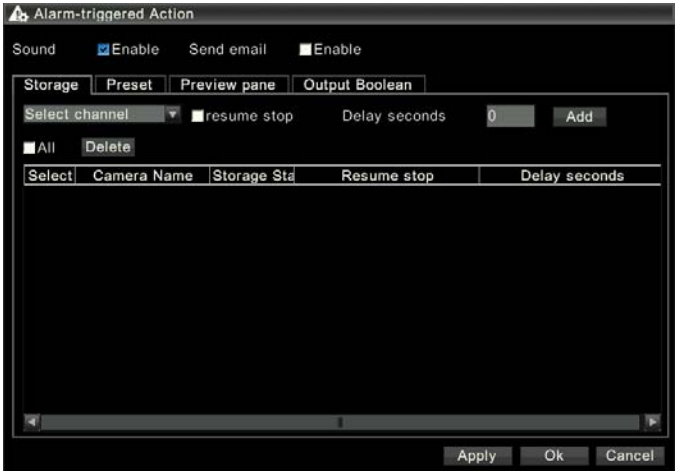
Configuring the Triggered Action

You can associate triggered alarms with one or several types of actions, so as to handle alarms and triggered actions in time.

Before configuring alarm-triggered actions, verify that the related alarms have been configured and enabled. For details, refer to [Configuring the Alarm Type](#).

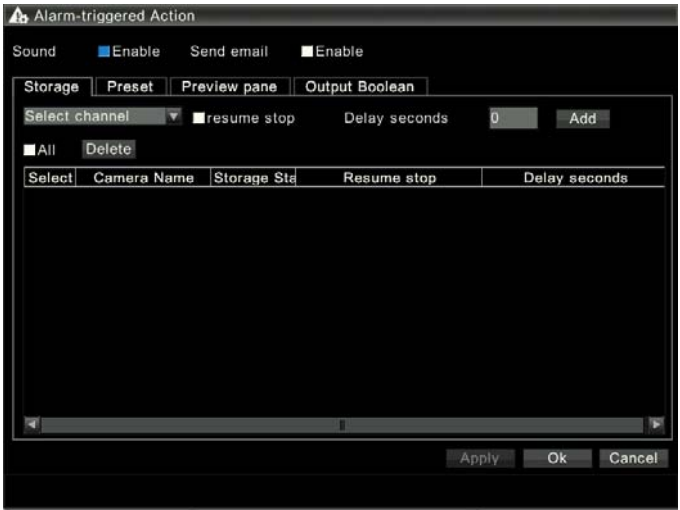
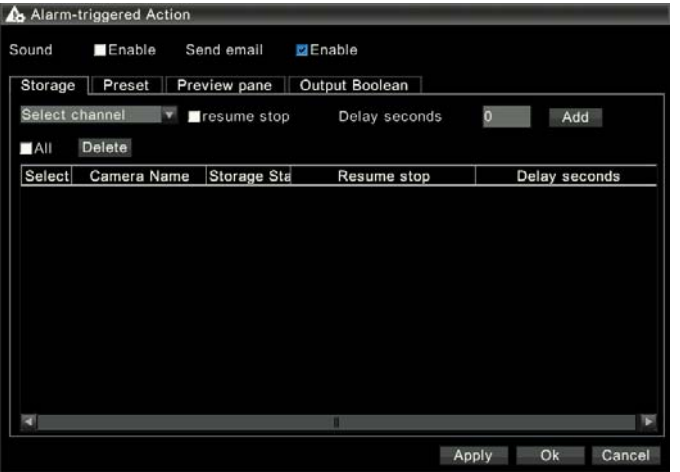
Alarm-Triggered Sound

The device uses a buzzer to make alarm sounds to inform users that alarms are generated at this moment.

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Alarm. The alarm configuration interface is displayed. 2. Select the alarm type. Select the Alarm Type tab for which an alarm-triggered action needs to be configured, and click Trigger Action. The Alarm-triggered Action interface is displayed.	
3. Enable the audible alarm function.	
4. Click Ok. The configuration is saved.	-

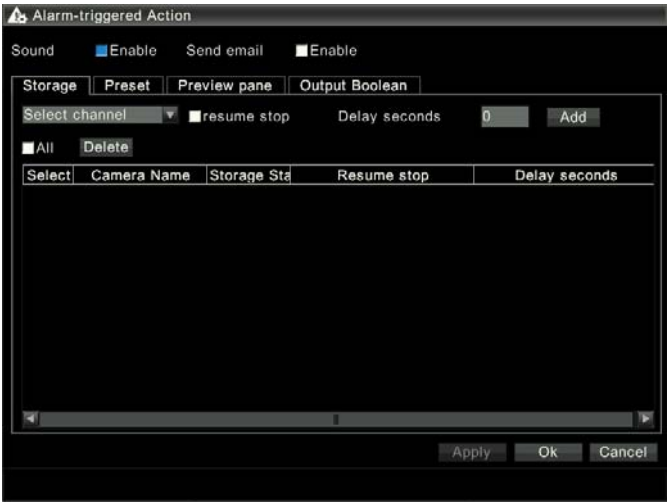
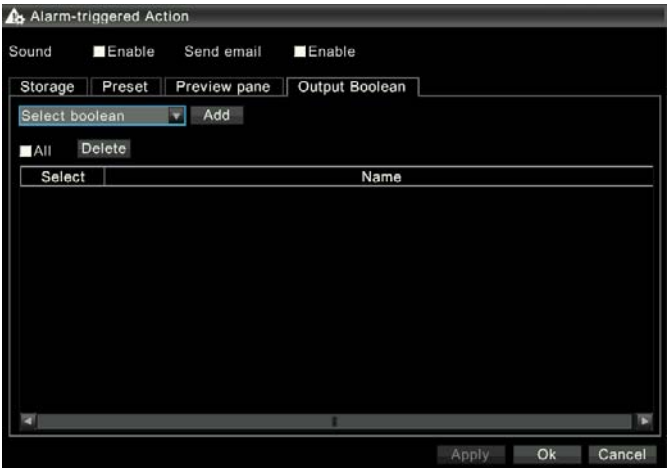
Alarm-triggered Email

The device can inform users that alarms are generated by sending emails.

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Alarm. The alarm configuration interface is displayed. 2. Select the alarm type. Select the Alarm Type tab for which an alarm-triggered action needs to be configured, and click Trigger Action. The Alarm-triggered Action interface is displayed.	
3. Enable the email sending function. For information about email configuration, refer to Email Server.	
4. Click Ok. The configuration is saved.	-

Alarm-triggered Boolean Output

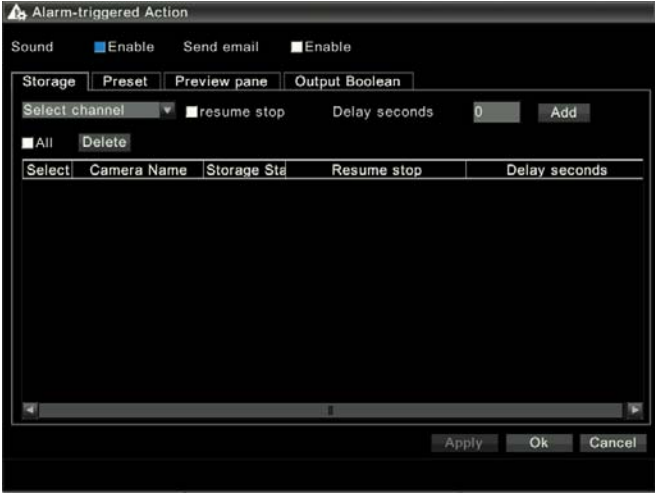
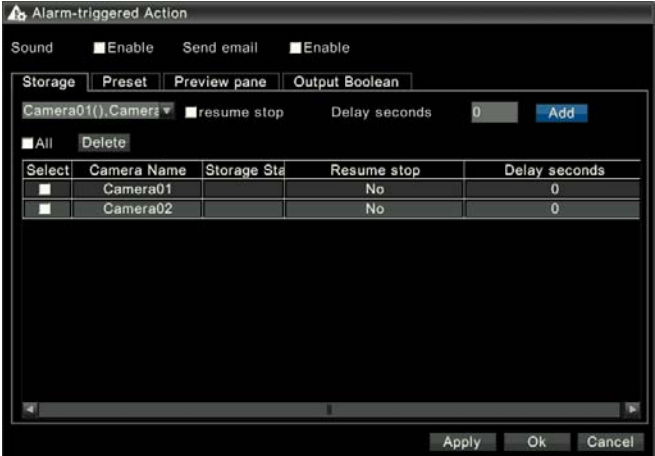
This configuration enables the device to trigger corresponding Boolean alarms, so as to trigger actions of third-party devices when alarms are generated. Before configuring alarm-triggered Boolean output, enable the alarm output function in Boolean configuration. For details, refer to [Configuring the Alarm Type](#)

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Alarm. The alarm configuration interface is displayed. 2. Select the alarm type. Select the Alarm Type tab for which an alarm-triggered action needs to be configured, and click Trigger Action. The Alarm-triggered Action interface is displayed.	
3. Configure alarm-triggered Boolean output items. 1) Click the Output Boolean tab. The alarm-triggered Boolean output configuration interface is displayed.	
2) Select a Boolean output item and click Add to add the item to a list. Repeat this operation to add all Boolean output items to be associated.	
4. Click Ok. The configuration is saved.	-

Alarm-Triggered Storage

This configuration enables the camera to record the situation when an alarm is generated, so that you can check the data later when necessary.

Before configuring alarm-triggered storage, you need to configure storage resources for the camera that is bound to a channel. For details, refer to [Configuring Storage Resources](#).

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Alarm. The alarm configuration interface is displayed. 2. Select the alarm type. Select the Alarm Type tab for which an alarm-triggered action needs to be configured, and click Trigger Action. The Alarm-triggered Action interface is displayed. 3. Configure the alarm-triggered storage function. 1) Click the Storage tab. The alarm-triggered storage configuration interface is displayed.	
2) Select the camera channel for which alarm-triggered storage needs to be configured, and click Add to add the camera to the list. Repeat the operation to add all cameras that need the alarm-triggered storage function.  NOTE ! On the History Alarm page of the Web interface, you can perform on-demand playback for alarm-triggered storage records. For details, refer to the online help.	
4. Click Ok. The configuration is saved.	-

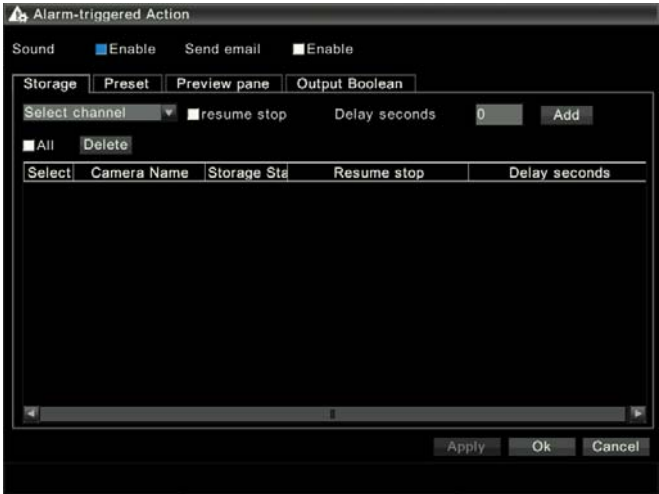
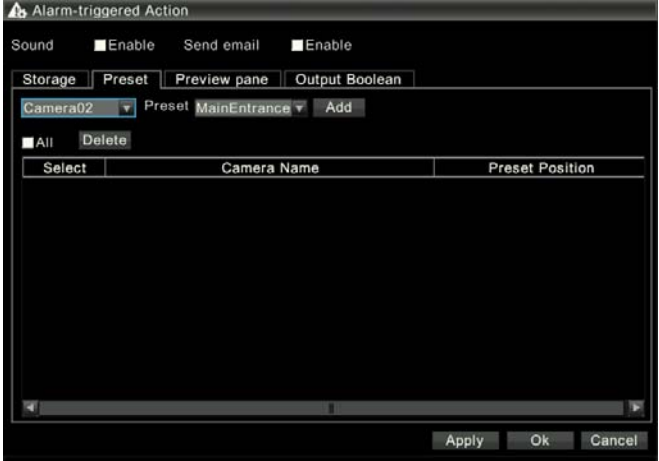
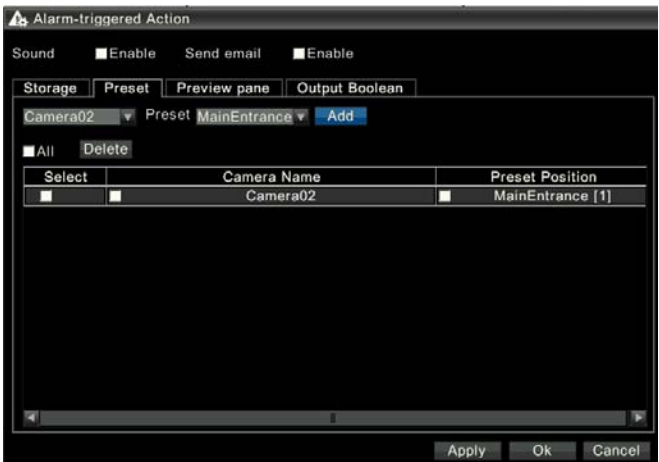
Alarm-Triggered Adjustment of PTZ to a Preset Position

This function is used to move a PTZ camera to a specific position when an alarm is generated, enabling users to capture images in real time.



NOTE !

When this function is configured for a PTZ, the PTZ is automatically preempted by alarm triggering.

Steps	Screenshot
- Right-click anywhere in the preview interface, and then choose Menu > Alarm. The alarm configuration interface is displayed. - Select the alarm type. Select the Alarm Type tab for which an alarm-triggered action needs to be configured, and click Trigger Action. The Alarm-Triggered Action interface is displayed.	
- Configure the alarm-triggered preset position. - Click the Preset tab. The configuration interface for setting the alarm-triggered preset position for the PTZ is displayed.	
Select a PTZ camera for which an alarm-triggered preset position needs to be set, select a preset position number, and click Add to add information about the preset position of the camera to a list. Repeat the operation to add PTZ cameras requiring the alarm-triggered action and related preset positions to the list.	



NOTE !

Before associating a PTZ to a preset position, ensure that the preset position has been configured. For details about how to configure the preset position, refer to [Configuring and Calling Preset Positions](#).

Steps	Screenshot
4. Click Ok . The configuration is saved.	-

Alarm-triggered Preview Pane

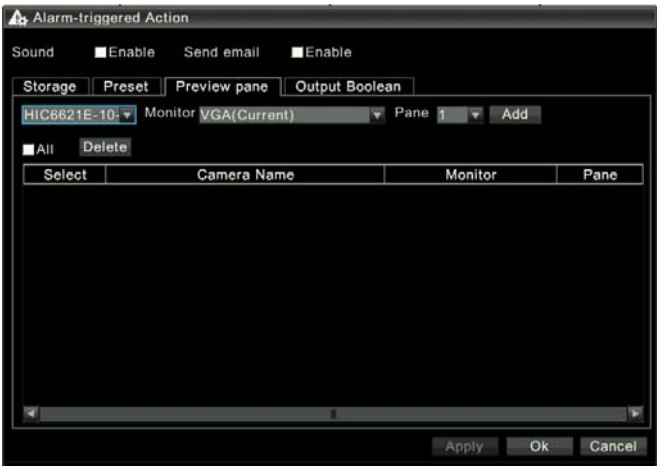
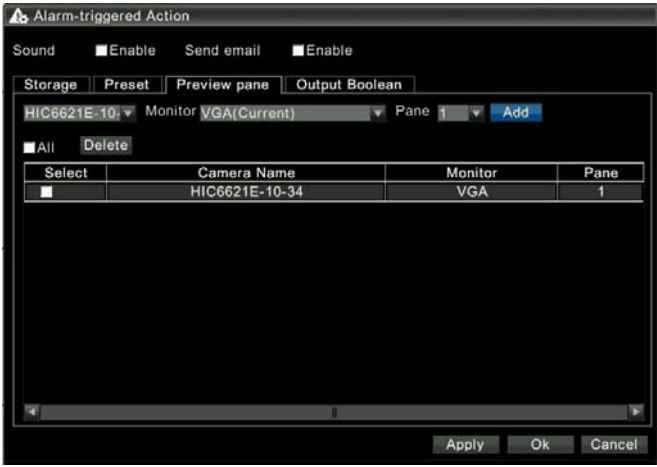
This configuration enables the device to directly play videos on a specific preview pane when alarms are generated (while the alarm-triggering icon is shown in the top left corner of the pane), allowing you to learn about alarm information in real time.



NOTE !

- When live viewing is associated with a preview pane, the service on the preview pane is preempted by alarm triggering. If the preview pane associated with live viewing is not visible in the current screen splitting mode, the device automatically switches the screen splitting mode and displays the minimum number of split screens including the associated the preview pane.
- A camera can be associated with multiple preview panes.

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Alarm. The alarm configuration interface is displayed. 2. Select the alarm type. Select the Alarm Type tab for which an alarm-triggered action needs to be configured, and click Trigger Action. The Alarm-triggered Action interface is displayed.	

Steps	Screenshot
3. Configure the alarm-triggered preview pane. 1) Click the Preview pane tab. The Preview pane interface is displayed. The figure on the right is for your reference only. The actual interface may be different.	
2) Select the camera, monitor and preview pane for alarm-triggered preview pane configuration, and click Add to add information about the camera, monitor, and preview pane to a list. 3) Repeat the operation to add all preview panes to be associated. The figure on the right is for your reference only. The actual interface may be different.	
4. Click Ok. The configuration is saved.	-

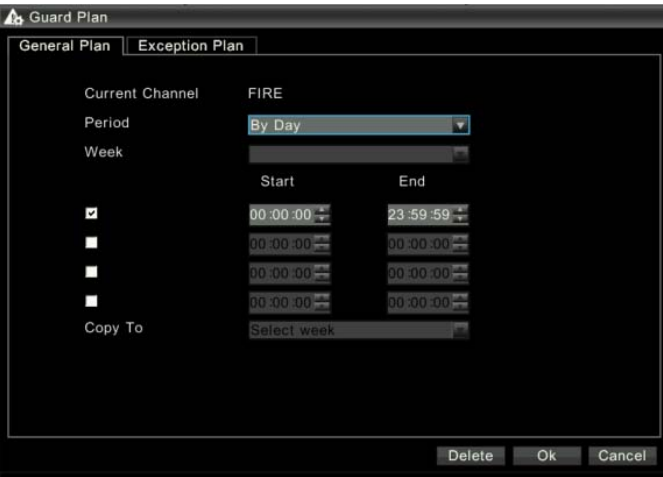
Configuring the Guard Plan

You can set a valid guard period by configuring a guard plan. The device can report alarms and trigger associated actions only in this period. You can set different guard periods as required.



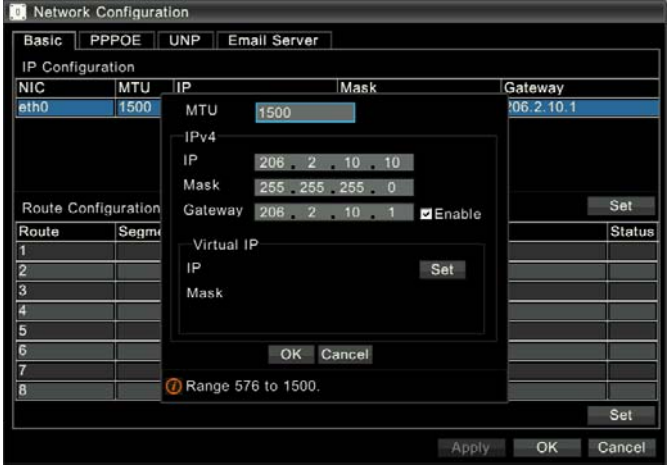
NOTE !

Device alarm (including fan failure alarm, temperature alarm, and anti-disassembly alarm) and the video loss alarm are deployed around the clock and cannot be withdrawn. They are reported as long as corresponding alarm functions are enabled.

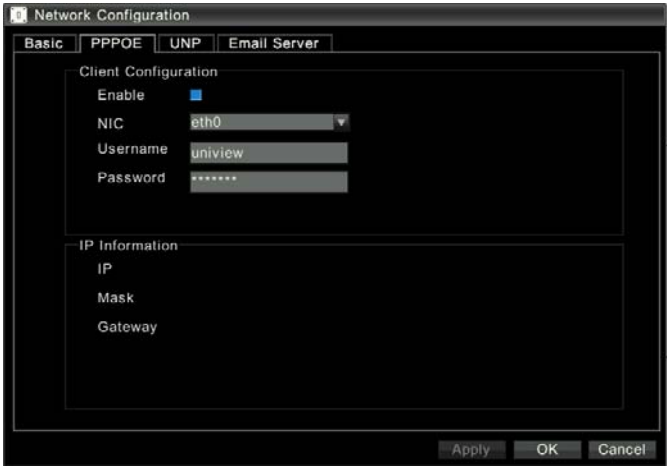
Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Alarm. The alarm configuration interface is displayed. 2. Select the alarm type. Select the Alarm Type tab for which the guard plan needs to be configured, and click Guard Plan. The Guard Plan interface is displayed. 3. Configure general and exceptional plans. On the day of the exceptional plan, only the guard plan in the exceptional period is executed. On the other days, the general guard plan is executed. - After configuring parameters for the exceptional plan, click Add schedule to add the exceptional plan to the Exception plan drop-down list box. - To delete an exceptional plan, select it from the Exception plan drop-down list box and click Delete schedule. 4. Click Ok. The configuration is saved.	 The screenshot shows the 'Guard Plan' window with the 'General Plan' tab selected. The 'Current Channel' is set to 'FIRE'. The 'Period' is set to 'By Day'. The 'Week' is set to 'Select week'. There are four checkboxes for different days of the week, all of which are currently unchecked. The 'Start' and 'End' times are set to '00:00:00' and '23:59:59' respectively. The 'Copy To' field is set to 'Select week'. At the bottom right, there are 'Delete', 'Ok', and 'Cancel' buttons.  The screenshot shows the 'Guard Plan' window with the 'Exception Plan' tab selected. The 'Current Channel' is set to 'FIRE'. The 'Exception plan' is set to '2013-12-24'. The 'Date' is set to '2013 - 12 - 24'. There are four checkboxes for different days of the week, all of which are currently unchecked. The 'Start' and 'End' times are set to '00:00:00' and '23:59:59' respectively. The 'Copy to' field is set to '2013 - 12 - 23'. At the bottom right, there are 'Delete', 'Ok', and 'Cancel' buttons. There are also 'Delete schedule', 'Add schedule', and 'Copy' buttons.

9 Network Configuration

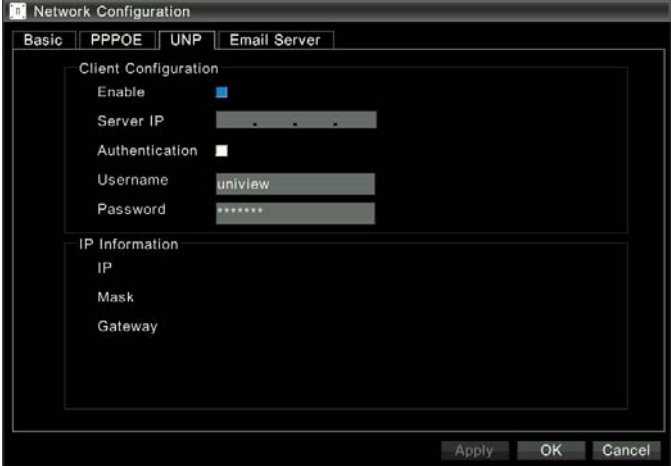
Static Address

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Network > Basic. 2. The Network Configuration interface is displayed. 3. Double-click an NIC to configure its IP address, subnet mask, and default gateway. 4. Click OK.  NOTE ! After the NIC eth0 is configured, system services are restarted.	

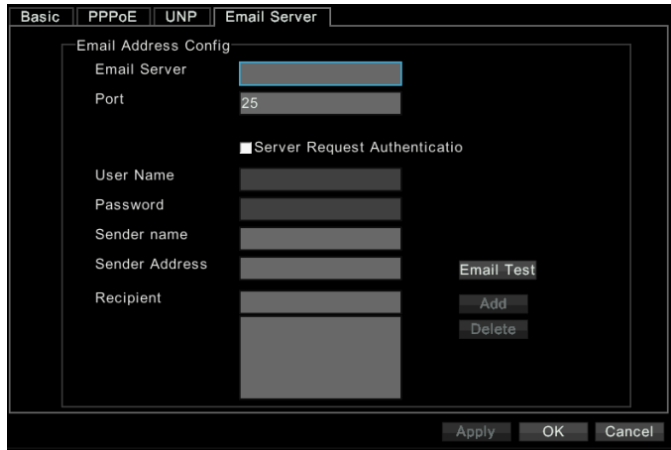
PPPoE

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Network > PPPoE. 2. The PPPoE configuration interface is displayed. 3. Enable PPPoE, and enter the username and password provided by the ISP. The obtained network information is shown in the bottom area of the interface.	

UNP

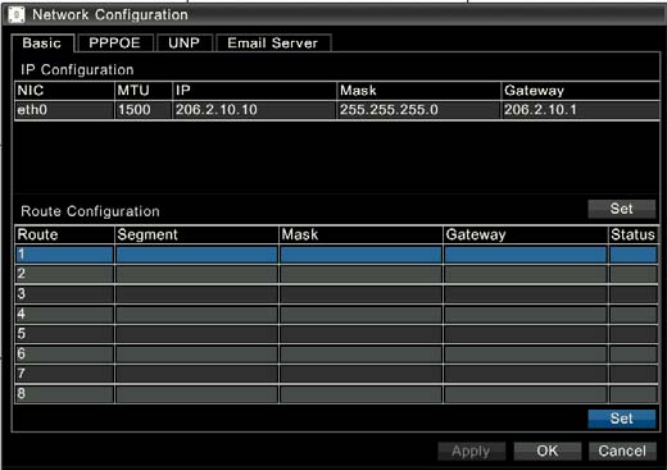
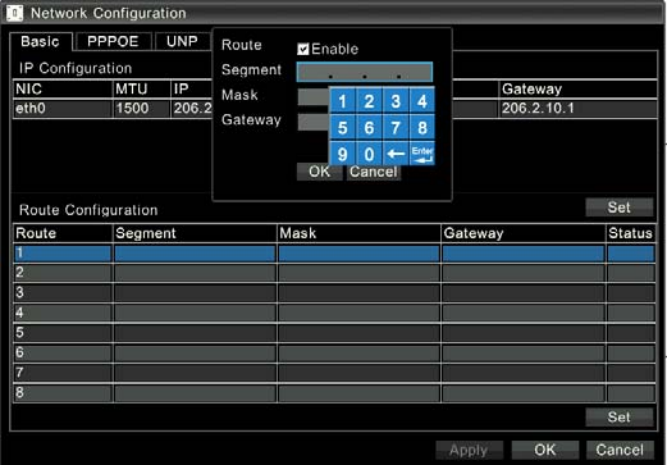
Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Network > UNP. 2. The UNP configuration interface is displayed. 3. Enable UNP, and enter the IP address of the UNP server. 4. If the authentication function is enabled on the UNP server, enable this function on the interface and set the username and password for UNP authentication (the username and password must be the same as those configured on the UNP server).  NOTE ! <i>Before configuring the IP address through UNP, ensure that the device communicates normally with the UNP server.</i>	

Email Server

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Network > Email Server 2. The email server configuration interface is displayed. 3. Enter the IP address and port number of the email server, and addresses of the email sender and recipient. In addition, specify whether to enable or disable the authentication function for the server.  NOTE ! <i>Before configuring the email server, ensure that the device communicates normally with the email server.</i>	

Configuring Routes

You can add routes in the **Route Configuration** area of the **Network Configuration** interface.

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Network > Basic. The basic configuration interface is displayed. 2. Configure route parameters. 1) Click Set in the Route Configuration area. The route configuration interface is displayed.	
2) Enable the route and configure its IP network segment, subnet mask, and gateway.	

10 System Configuration

Basic Configuration

Only the user **admin** can perform basic configuration.

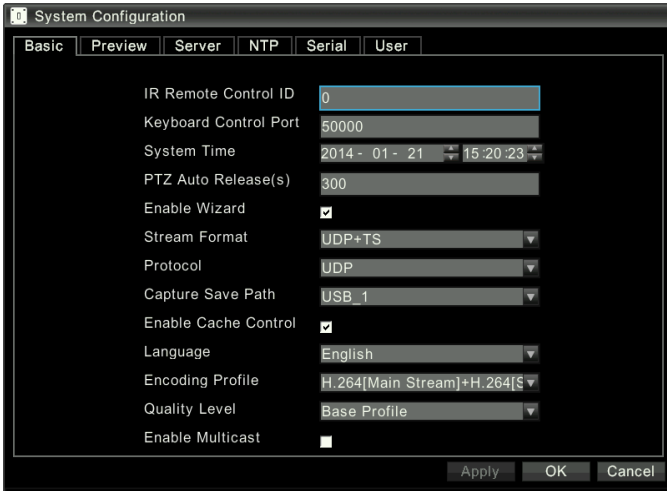
Steps	Screenshot
- Right-click anywhere in the preview interface, and then choose Menu > Configuration > Basic. - The basic configuration interface is displayed. - Configure basic parameters. For details about important parameters, see Table 10-1.  NOTE ! For different models, different parameters may be displayed, so refer to the actual interface for the specific parameters. - Click OK. The configuration is saved.	

Table 10-1 Description of Important Parameters Involved in Basic Configuration

Parameter	Description
IR Remote Control ID	Specifies the device code, which can be any number from 0 to 254. The device code is 0 upon factory delivery by default. If the remote control ID is 0, the remote control can be used without being authenticated; if the remote control ID is not 0, press Device on the remote control to authenticate the device code when starting the man-machine interface of the device. The remote control can be used only after the device code passes the authentication.
PTZ Auto Release (s)	When the PTZ is not preempted by any other user with higher permissions and the user currently controlling the PTZ has not exited from the PTZ toolbar, if the user does not operate the PTZ for a specified time period, the PTZ is automatically released when the specified time expires so that other users can control the PTZ.
Enable Wizard	After the start wizard is enabled, the start wizard configuration interface is always displayed when the device is restarted at the next time.
Stream Format	Specifies the media stream bearing protocol supported by device, so as to meet the requirements of actual application scenarios. UDP+TS: Indicates that media streams in TS encapsulation format are borne through UDP. RTP+PS: Indicates that media streams in PS encapsulation format are borne through RTP.
Stream Protocol	Specifies the transmission protocol of live streams. The default media stream protocol is UDP. You can change it to TCP according to actual network requirements, for example, when the network environment is adverse.

Parameter	Description
Capture Save Path	Specifies the path for saving captured images in the USB flash drive. Note: <i>USB_1 specifies the first partition of the USB flash drive, USB_2 specifies the second partition of the USB flash drive, and so on.</i>
Enable Cache Control	Enables or disables the cache control function. Note: <i>It is recommended that you enable cache control when network delay or intermittent interruption exists or when stream smoothing is enabled on the encoding device.</i>

Configuring the Server

Only the user **admin** can configure the server.

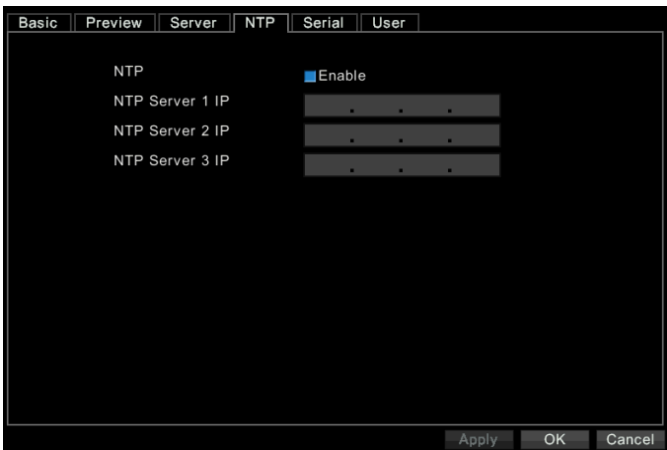
Steps	Screenshot
- Right-click anywhere in the preview interface, and then choose Menu > Configuration > Server. The server configuration interface is displayed. - Configure server parameters. For details about important parameters, see Table 10-2. - Click OK. The configuration is saved.	 The top screenshot shows the 'System Configuration' dialog box with the 'Server' tab selected. It contains fields for 'Device Name' (DEVICE1), 'Device ID' (DEVICE1), and 'Management Mode' (Server selected, Stand-alone unselected). The bottom screenshot shows the same dialog box with additional fields: 'Server IP' (192.168.111.26) and 'Protocol' (IMOS). Both screenshots have 'Apply', 'OK', and 'Cancel' buttons at the bottom right.

Table 10-2 Description of Important Parameters Involved in Server Configuration

Parameter	Description
Management Mode	Server: The device is centrally managed by a central server. Stand-alone: The device is not centrally managed. Note: If Management Mode is set to Server for the device and when the NTP server time synchronization is disabled on the device, the device synchronizes to the time of the central server.
Server IP	If Management Mode is set to Server , the value of this parameter should be consistent with the IP address of the central server in actual networking.
Protocol	If Management Mode is set to Server , the value of this parameter should be consistent with the inter-domain interconnection communications protocol set on the central server in actual networking.

Configuring NTP

Only the user **admin** can configure the NTP function.

Steps	Screenshot
- Right-click anywhere in the preview interface, and then choose Menu > Configuration > NTP. The NTP configuration interface is displayed. - Enable the time synchronization function and configure the IP address of the NTP server. - Click OK. The configuration is saved.	



NOTE !

- The device preferentially synchronizes its time to that of NTP Server 1. If NTP Server 1 is offline, the device synchronizes its time to the time of NTP Server 2, and so on.
- If NTP server time synchronization is disabled on the device running in server management mode, the devices synchronizes its time to the time of the central server. If the time zone changes during time synchronization, the device restarts.

Configuring the Serial Port

Only the user **admin** can configure the serial port.

Serial port parameters must match those of the connected serial device. These parameters need to be configured for PTZ control or device maintenance.



NOTE !

- The device can be completely configured only after the system has obtained its model information. The system can obtain device model information in the following way: A device added to the system for the first time needs to go online. If the device once went online but is currently offline, the system can also obtain the model information about the device.
- The parameters to be set may vary, depending on the device model. Therefore, the actual pages may be different.

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Configuration > Serial. The serial port configuration interface is displayed. 2. Configure serial port parameters. For details about important parameters, see Table 10-3. 3. Click OK. The configuration is saved.	
The figure on the right shows the transparent channel configuration interface. The selected serial port is only for your reference only. The actual serial port may be different.	

Table 10-3 Description of Important Parameters Involved in Serial Port Configuration

Parameter	Description
Serial Type	• RS232: It is used for device maintenance. For example, the RS-232 port may be used to connect a PC. • RS485: It is used to connect an external device, such as a PTZ camera, a transparent channel device for data transmission, or a specialized keyboard.
Serial Mode	• Debugging: It is selected only for the DVR device. The RS-232 serial port is used for device maintenance. • PTZ control: Allows you to control the PTZ camera through the RS485 serial port. • Transparent Channel: It is selected to transparently transmit data between the device and the third-party device through the RS-485 serial port. Note: If the device is the registered online IPC, the serial mode can be Transparent Channel, PTZ Control, or OSD Overlay. On the actual configuration interface, this parameter varies with different device models.
Transparent Channel	This parameter specifies whether to enable or disable the transparent channel function. A transparent channel refers to a channel that transparently transmits data between two devices. One end of the channel is a serial port, and the other end is a network port. Note: Select Enable when the serial mode is set to Transparent Channel.
Destination IP Destination Port	IP address and port number of the port at the other end of the transparent channel Note: The two parameters can be set only when the serial port mode is set to Transparent Channel.

User Configuration

Users are entities for system management and operation. After being assigned corresponding role permissions, users can log in to the device to perform corresponding system management and operations. A role is a group of operation permissions. When a role is assigned to a user, the user has all permissions defined in the role.

admin is the default super system administrator, who owns all permissions. The username and initial password of this user are both **admin**. The user **admin** can change its own password but cannot be deleted. Only the user **admin** can perform user management. The system supports two types of user roles:

- **Operator**: This role has live playback and related service permissions by default. The user **admin** can modify the permissions of the Operator as necessary.
- **Administrator**: This role has service management, live playback, and service query permissions by default. The user **admin** can modify the permissions of the Administrator as required.



NOTE !

Some permissions are associated with each other. For example, when the patrol configuration or preset position configuration permission is configured, the live viewing and PTZ control permissions of the camera are automatically added.

Adding Users

Only the user **admin** can add users.



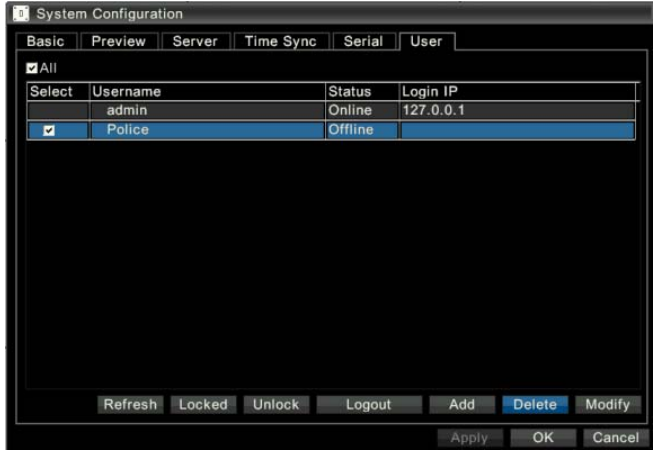
NOTE !

- The system supports a maximum of 32 users (including the user **admin**).
- The priorities of role permissions are as follows in descending order: admin > Administrator > Operator. The role with the highest priority has the highest permission to preempt resources.

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Configuration > User. The user configuration interface is displayed. 2. Add a user. 1) Click Add. The Add User interface is displayed.	
2) Set the username, password, and role of the user, and grant certain permissions to the user. 3. Click Ok. The configuration is saved.	

Deleting Users

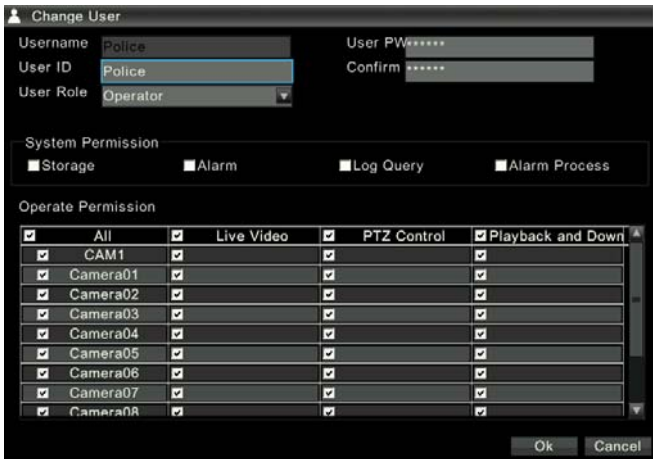
Only the user **admin** can delete users.

Steps	Screenshot
- Right-click anywhere in the preview interface, and then choose Menu > Configuration > User. The user configuration interface is displayed. - Delete users. Select one or more users from a user list and click Delete. Then click Yes to confirm the deletion operation.  NOTE ! <i>After being deleted, a user cannot log in to the system again. If the user has logged in before being deleted, the user is forcibly logged out.</i>	

Modifying User Information

Only the user **admin** can modify user information.

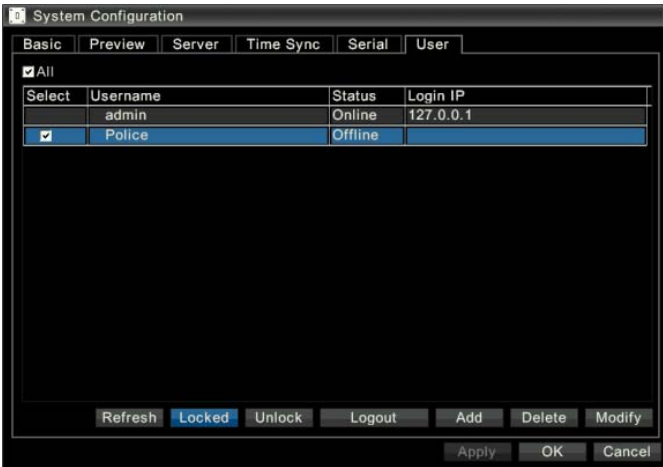
Steps	Screenshot
- Right-click anywhere in the preview interface, and then choose Menu > Configuration > User. The user configuration interface is displayed. - Modify user information. 1) Select a user from the user list and click Modify. The Change User interface is displayed.	

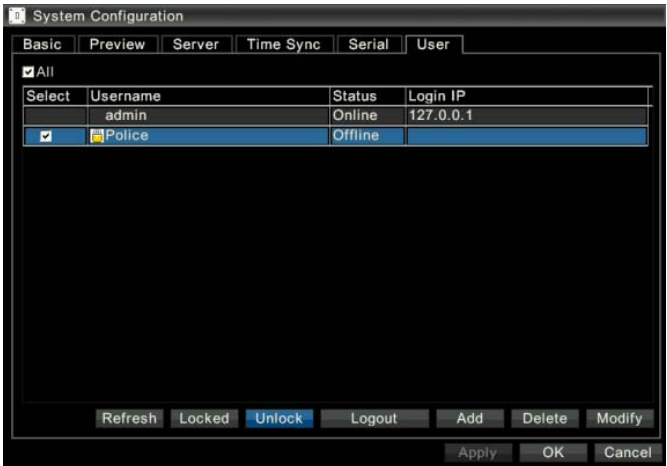
Steps	Screenshot
2) Change the user ID, password, or role information. 3. Click Ok. The configuration is saved.  NOTE ! - The user admin can change passwords, roles, and permissions of other users. For details, refer to Adding Users. An online user can change its own password by choosing Menu > Configuration > Password Change. - After a user password is changed, the user must use the new password when logging in to the system next time.	

Locking or Unlocking Users

Only the user **admin** can lock or unlock users.

You can lock some users so as to prevent these users from logging in to the device.

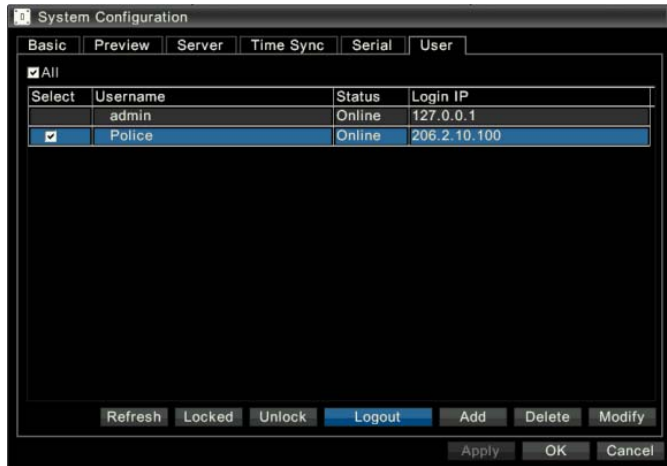
Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Configuration > User. The user configuration interface is displayed. 2. Lock a user. Select the user to be locked and click Locked. Then click Yes to confirm the deletion operation.  NOTE ! When a user is locked, the icon  exists before the username of the user. If an online user is locked, the user is forcibly logged out of the system. The user cannot log in to the system again unless it is unlocked.	

Steps	Screenshot
3. Unlock a user. Select the user to be unlocked and click Unlock. Then click Yes to confirm the unlocking operation.	 The screenshot shows the 'System Configuration' window with the 'User' tab selected. A table lists users: 'admin' (Online, 127.0.0.1) and 'Police' (Offline, 206.2.10.100). The 'Police' user is selected with a checkbox. At the bottom, the 'Unlock' button is highlighted in blue.

Logging Out Users Forcibly

Only the user **admin** can log out users forcibly.

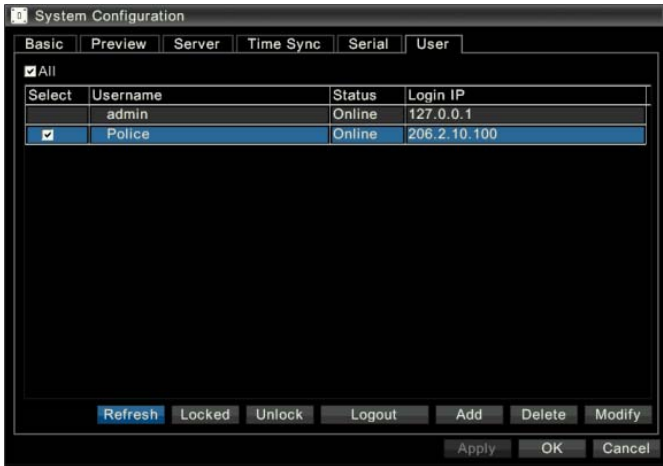
A user forcibly logged out of the system needs to log in to the system again so as to perform various service operations.

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Configuration > User. The user configuration interface is displayed. 2. Log out a user forcibly. Select the user to be logged out forcibly and click Logout. Then click Yes to confirm the logout operation.	 The screenshot shows the 'System Configuration' window with the 'User' tab selected. A table lists users: 'admin' (Online, 127.0.0.1) and 'Police' (Online, 206.2.10.100). The 'Police' user is selected with a checkbox. At the bottom, the 'Logout' button is highlighted in blue.

Refreshing the User List

Only the user **admin** can refresh the user list.

If users simultaneously operate the man-machine interface and web interface, the data on the two interfaces may be asynchronous. Therefore, it is recommended that you refresh the user list at a specific interval to obtain latest information.

Steps	Screenshot
- Right-click anywhere in the preview interface, and then choose Menu > Configuration > User. The user configuration interface is displayed. - Refresh the user list. Click Refresh. The latest user list information is displayed.	

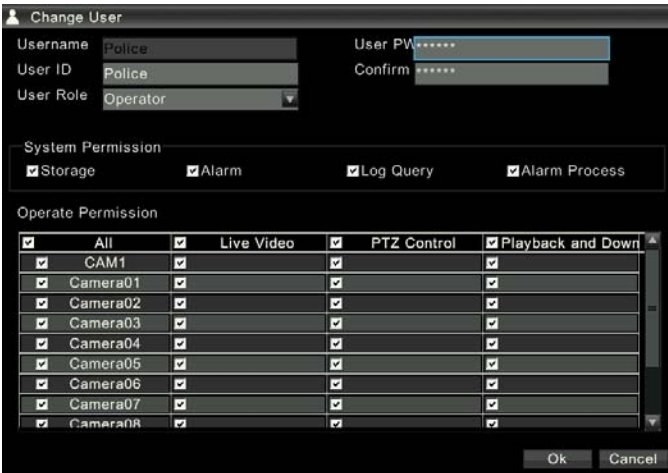
Modifying Passwords



NOTE !

After a user password is changed, the new password takes effect when the user logs in to the system next time. The login password on the man-machine interface is the same as that on the web interface. When the login password on the man-machine interface is changed, the password on the web interface is changed accordingly.

Steps	Screenshot
- Right-click anywhere in the preview interface, and then choose Menu > Configuration > User. The user configuration interface is displayed. - Change the user's own password. In the figure on the right, the user admin is used as an example. Double-click the row of the selected user. A dialog box is displayed. Enter the old, new, and confirmed passwords, and then click OK to finish the operation.	

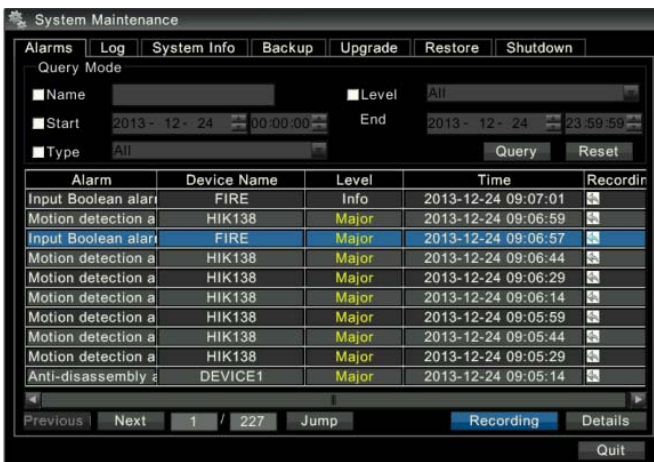
Steps	Screenshot
3. Change the passwords of other users. Note that only the user admin has the permission to change the passwords of other users. Double-click a user whose password needs to be changed. The Change User interface is displayed. Enter the user password and confirmed password, and then click Ok to finish the operation.	

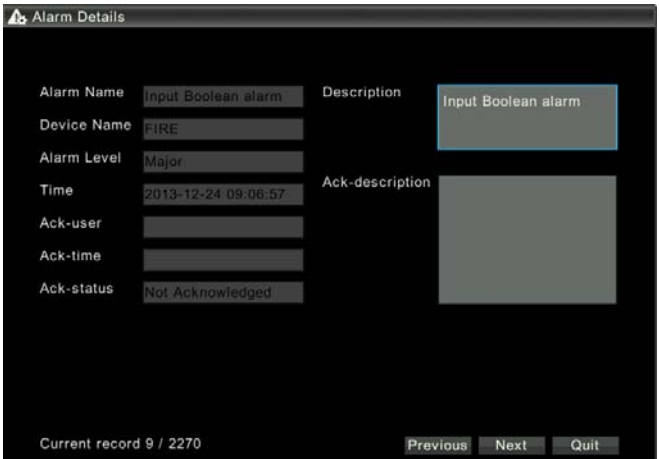
11 Device Maintenance

Querying History Alarms

You can view alarm details by querying history alarms.

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Maintenance > Alarms. The history alarm interface is displayed.	

Steps	Screenshot																																																							
2. Set the alarm query condition. Set the device name, alarm level, alarm type, start time, and end time, or set any combination of these parameters, and then click Query. The history alarms meeting the condition are displayed.	 The screenshot shows the 'System Maintenance' window with the 'Alarms' tab selected. The 'Query Mode' section includes fields for Name, Level (set to 'All'), Start time (2013-12-24 00:00:00), End time (2013-12-24 23:59:59), and Type (set to 'All'). A 'Query' button is visible. Below the query fields is a table of alarms: <table><thead><tr><th>Alarm</th><th>Device Name</th><th>Level</th><th>Time</th><th>Recording</th></tr></thead><tbody><tr><td>Motion detection a</td><td>HIK138</td><td>Major</td><td>2013-12-24 09:08:04</td><td></td></tr><tr><td>Device online</td><td>HIK138</td><td>Warning</td><td>2013-12-24 09:08:03</td><td></td></tr><tr><td>Device offline</td><td>HIK138</td><td>Warning</td><td>2013-12-24 09:07:57</td><td></td></tr><tr><td>Motion detection a</td><td>HIK138</td><td>Major</td><td>2013-12-24 09:07:44</td><td></td></tr><tr><td>Motion detection a</td><td>HIK138</td><td>Major</td><td>2013-12-24 09:07:29</td><td></td></tr><tr><td>Motion detection a</td><td>HIK138</td><td>Major</td><td>2013-12-24 09:07:14</td><td></td></tr><tr><td>Input Boolean alarm</td><td>FIRE</td><td>Info</td><td>2013-12-24 09:07:01</td><td></td></tr><tr><td>Motion detection a</td><td>HIK138</td><td>Major</td><td>2013-12-24 09:06:59</td><td></td></tr><tr><td>Input Boolean alarm</td><td>FIRE</td><td>Major</td><td>2013-12-24 09:06:57</td><td></td></tr><tr><td>Motion detection a</td><td>HIK138</td><td>Major</td><td>2013-12-24 09:06:44</td><td></td></tr></tbody></table> At the bottom, there are navigation buttons: Previous, Next, 1 / 227, Jump, Recording, Details, and Quit.	Alarm	Device Name	Level	Time	Recording	Motion detection a	HIK138	Major	2013-12-24 09:08:04		Device online	HIK138	Warning	2013-12-24 09:08:03		Device offline	HIK138	Warning	2013-12-24 09:07:57		Motion detection a	HIK138	Major	2013-12-24 09:07:44		Motion detection a	HIK138	Major	2013-12-24 09:07:29		Motion detection a	HIK138	Major	2013-12-24 09:07:14		Input Boolean alarm	FIRE	Info	2013-12-24 09:07:01		Motion detection a	HIK138	Major	2013-12-24 09:06:59		Input Boolean alarm	FIRE	Major	2013-12-24 09:06:57		Motion detection a	HIK138	Major	2013-12-24 09:06:44	
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Input Boolean alarm	FIRE	Major	2013-12-24 09:06:57																																																					
Motion detection a	HIK138	Major	2013-12-24 09:06:44																																																					
3. View alarm-triggered recordings. 1) Click Recording. The Recording List interface is displayed.	 This screenshot is identical to the previous one, but the 'Recording' button at the bottom right of the alarm list is highlighted in blue.																																																							
2) Select the alarm-triggered recording to be viewed, and click Play to view the alarm-triggered recording.	 The screenshot shows the 'Recording List' window. It has a 'Select' checkbox column and a table with 'Camera Name', 'Start', and 'End' columns. <table><thead><tr><th>Select</th><th>Camera Name</th><th>Start</th><th>End</th></tr></thead><tbody><tr><td>☒</td><td>Camera03</td><td>2013-12-24 09:06:47</td><td>2013-12-24 09:07:57</td></tr><tr><td>☐</td><td>Camera04</td><td>2013-12-24 09:06:47</td><td>2013-12-24 09:07:57</td></tr></tbody></table> At the bottom right, there are 'Play' and 'Quit' buttons.	Select	Camera Name	Start	End	☒	Camera03	2013-12-24 09:06:47	2013-12-24 09:07:57	☐	Camera04	2013-12-24 09:06:47	2013-12-24 09:07:57																																											
Select	Camera Name	Start	End																																																					
☒	Camera03	2013-12-24 09:06:47	2013-12-24 09:07:57																																																					
☐	Camera04	2013-12-24 09:06:47	2013-12-24 09:07:57																																																					

Steps	Screenshot
4. View alarm details. Select a history alarm to be viewed and click Alarm Details.	 The screenshot shows a window titled "Alarm Details". It contains the following fields: - Alarm Name: Input Boolean alarm - Device Name: FIRE - Alarm Level: Major - Time: 2013-12-24 09:06:57 - Ack-user: (empty field) - Ack-time: (empty field) - Ack-status: Not Acknowledged - Description: Input Boolean alarm - Ack-description: (empty field) At the bottom, it says "Current record 9 / 2270" and has buttons for "Previous", "Next", and "Quit".

Upgrading the Version

Only the user **admin** can upgrade the version.

The device can be upgraded in the following methods:

- TFTP upgrade: The upgrade file is transferred through TFTP using the TFTPServer tool.
- FTP upgrade: The upgrade file is transferred through FTP using the FTPServer tool.
- Web upgrade: Software is upgraded through the web interface. For details, refer to the online help.

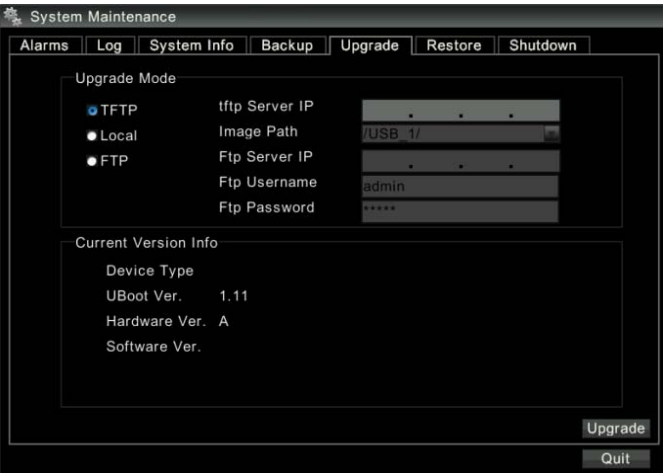
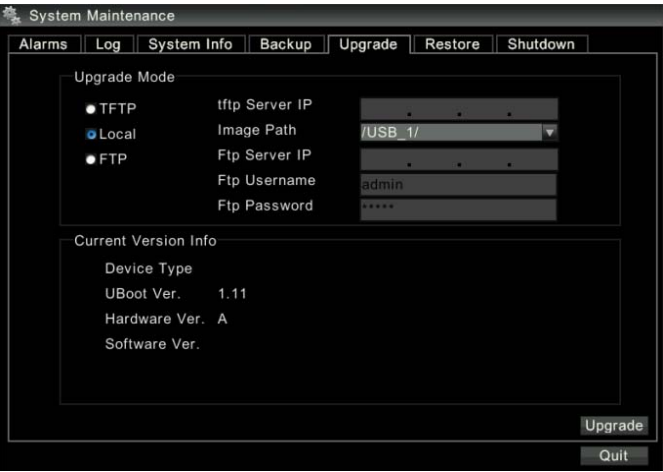
For details about TFTP or FTP upgrade, refer to the Release Notes that comes along with the version. The following sections only describe how to perform local upgrade.

- Local upgrade: The system is locally upgraded through the upgrade file in the USB storage device. For details about how to operate the USB storage device, refer to [System Backup](#).



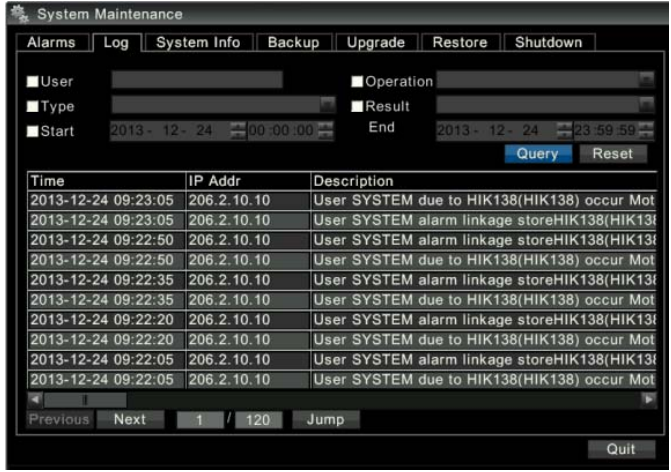
CAUTION !

- During upgrade, ensure that the device is powered on all the time. If the device is subject to a risk of frequent power-off, prepare a UPS in advance.
- Before performing local upgrade, copy the correct upgrade file to the root directory of the USB storage device; otherwise, the local upgrade will fail. After the upgrade is complete, the system automatically restarts.

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Maintenance > Upgrade. The version upgrade interface is displayed.	
2. Perform local upgrade. 1) Tick the Local checkbox, and select the directory (which is the root directory of the USB storage device) for saving the upgrade file from the Image Path drop-down list box. 2) Click Upgrade and confirm the upgrade operation. The version upgrade starts. After the upgrade is complete, the device automatically restarts. You can check the latest version information on the interface. The figure on the right is for your reference only. The actual interface may be different.	

Querying Logs

Logs record historical operations performed by users and the states of the device. You can check the working states of the device in the logs to perform fault location.

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Maintenance > Log. The log query interface is displayed.	
2. Set the log query condition. Set the username, operation type, log type, operation result, start time, and end time, or any combination of these parameters as the query condition. 3. Query logs. Click Query. The operation logs meeting the specific condition are displayed.  NOTE ! <i>You can query at most system operation logs of at most 30 days.</i>	

System Information

You can check device states in real time to facilitate device maintenance.

Right-click anywhere in the preview interface, and then choose **Menu > Maintenance > System Info**.

The system information interface is displayed. It shows the basic information and running status of the device.

Table 11-1 Description of System Information

Property	Description
Device Type	Current running type of the device
BootROM Version	Current boot version of the device
Hardware Version	Current hardware version of the device
Software Version	Current software version of the device

Property	Description
Device Temperature	Current temperature of the device
Runtime	Uninterrupted running time of the device
System Time	Current system time
Management Mode	Current management mode of the device Note: <i>This parameter is visible to the user admin only.</i>
Server Status	Status of the central server for managing the device (when the device is in server management mode) Note: <i>This parameter is visible to the user admin only.</i>
Server IP	IP address of the central server for managing the device (when the device is in server management mode) Note: <i>This parameter is visible to the user admin only.</i>
Server Port	Number of the communications port between the central server and the device (when the device is in server management mode) Note: <i>This parameter is visible to the user admin only.</i>

System Backup

Only the user **admin** can perform system backup. That is, the user **admin** can back up or export the system configuration, database, and system logs by using the USB storage device, thereby facilitating system maintenance.

The system backup interface shows the available capacity and the whole data volume of the USB storage device. You can refresh, create, and delete files in the USB storage device.



NOTE !

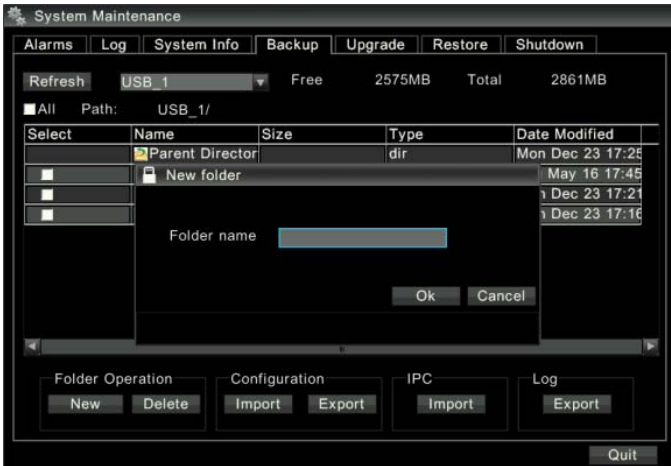
- The device supports only one USB storage device. For recommended USB storage models, contact sales or technical support personnel. If an independently powered mobile USB flash drive is required, prepare the power supply on your own.
- The USB port of the storage device must be USB 2.0 or a later version.
- The USB storage device uses the FAT32 file system, and supports only one partition.

Refreshing USB Storage Information

Steps	Screenshot
- Right-click anywhere in the preview interface, and then choose Menu > Maintenance > Backup. The system backup interface is displayed. - Refresh USB storage information. Click the USB partition drop-down list box to select a USB storage partition and click Refresh. The current capacity and directory information about the partition are displayed.	 The screenshot shows the 'System Maintenance' window with the 'Backup' tab selected. At the top, there are tabs for 'Alarms', 'Log', 'System Info', 'Backup', 'Upgrade', 'Restore', and 'Shutdown'. Below these, a 'Refresh' button is next to a dropdown menu showing 'USB_1'. To the right, storage statistics are displayed: 'Free 2575MB', 'Total 2861MB'. Below this, a table lists the contents of the USB_1 partition. The table has columns for 'Select', 'Name', 'Size', 'Type', and 'Date Modified'. The contents include a 'Parent Director' (dir), 'confdb.tar.gz' (file, 264.3KB), 'Camera01-2013' (file, 285.5MB), and 'snap_2013-12-2' (dir). At the bottom, there are buttons for 'Folder Operation' (New, Delete), 'Configuration' (Import, Export), 'IPC' (Import), and 'Log' (Export), along with a 'Quit' button.

Creating a USB Flash Drive Folder

Steps	Screenshot
- Right-click anywhere in the preview interface, and then choose Menu > Maintenance > Backup. The system backup interface is displayed. - Select a target directory. Select a partition of the mounted USB storage device from the USB flash drive drop-down list box (or select and double-click the directory of the new folder to access the directory).	 This screenshot is identical to the one in the previous table, showing the 'System Maintenance' window with the 'Backup' tab. It displays the same storage statistics and directory listing for the 'USB_1' partition, including the 'Parent Director', 'confdb.tar.gz', 'Camera01-2013', and 'snap_2013-12-2' entries. The interface elements like buttons and tabs are also the same.

Steps	Screenshot
3. Create a folder. Click New. The New folder window is displayed. Enter the folder name to create the folder.	

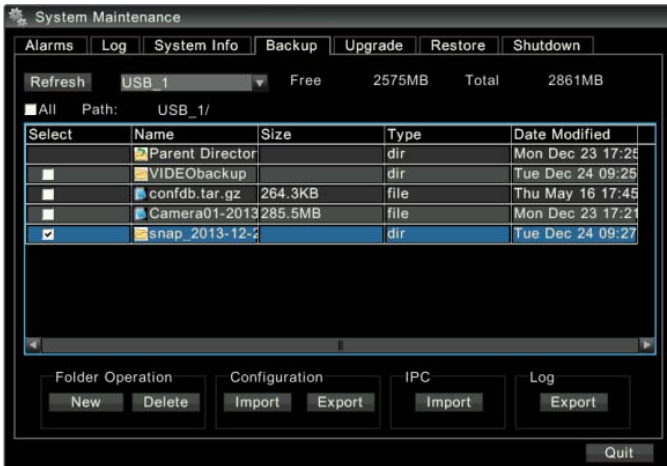
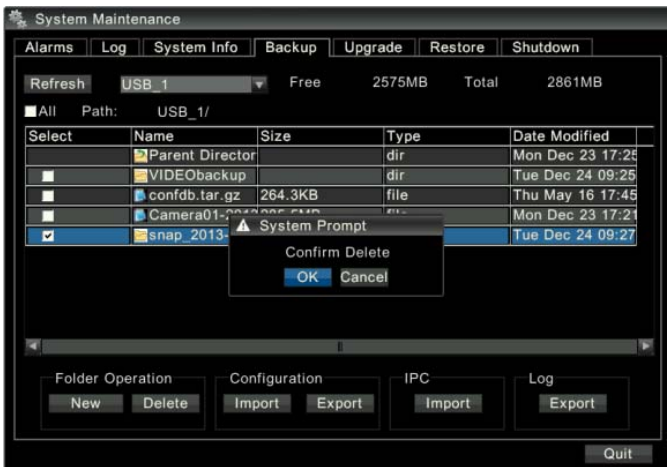
Deleting a USB Flash Drive File or Folder



CAUTION !

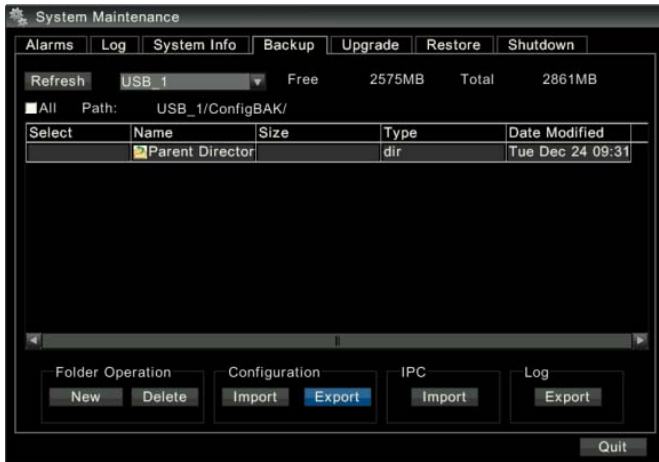
Data is permanently deleted after you delete a file. Therefore, exercise caution with this operation.

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Maintenance > Backup. The system backup interface is displayed.	

Steps	Screenshot
2. Select the target file or folder. Select a partition of the mounted USB storage device from the USB flash drive drop-down list box, and then select the file or folder to be deleted.	
3. Delete the target file or folder. Click Delete. A dialog box is displayed. Click Yes to confirm the deletion operation.	

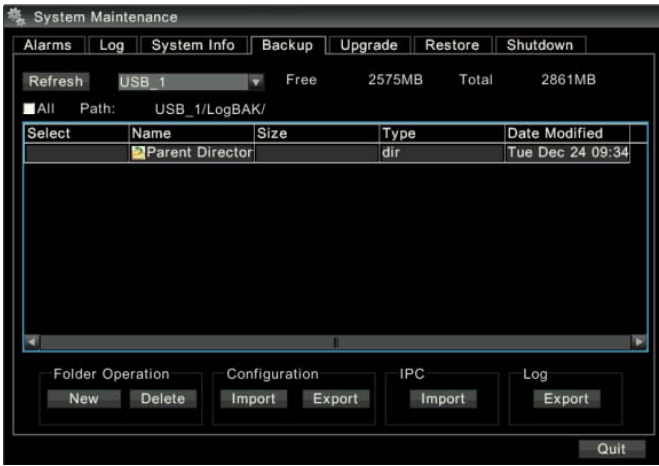
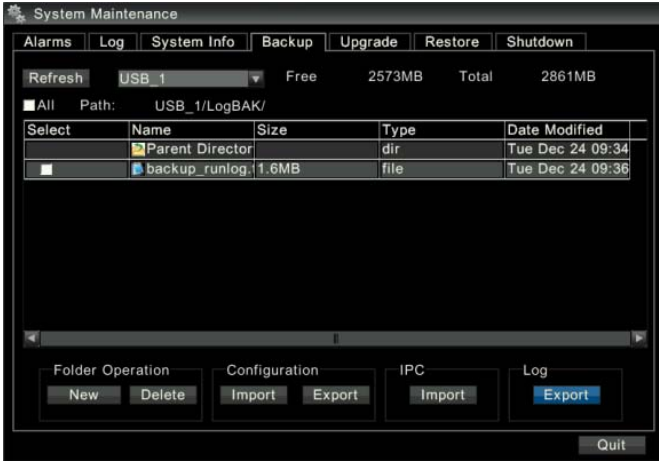
Exporting the System Configuration and Database

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Maintenance > Backup. The system backup interface is displayed.	

Steps	Screenshot
2. Select the export path. Double-click a directory from the directory list of the USB storage device, and select a folder to save the configuration file to be exported.	
3. Export the system configuration and database. Click Export in the Configuration area or the Database area. After a while, the system prompts that the export succeeds and generates the file confdb.tar.gz in the directory. Till now, the export operation is finished. i CAUTION! <i>If the name of the exported file already exists, a prompt is displayed, indicating whether to overwrite the existing file. Exercise caution with this operation.</i>	

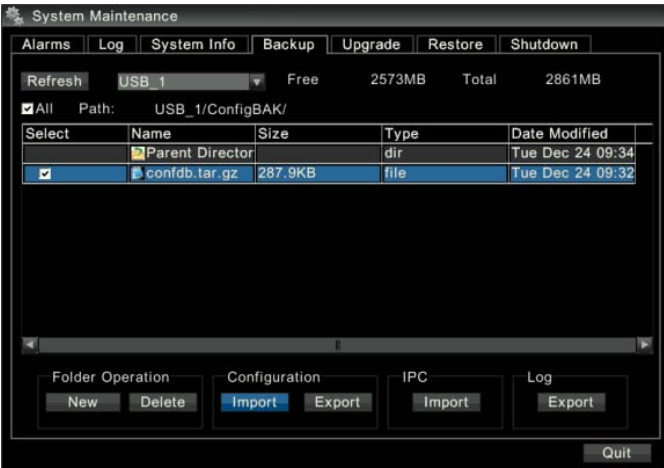
Exporting Logs

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Maintenance > Backup. The system backup interface is displayed.	

Steps	Screenshot
2. Select the export path. Double-click a directory from the directory list of the USB storage device, and select a folder to save the logs to be exported.	 The screenshot shows the 'System Maintenance' window with the 'Backup' tab selected. The 'Path' is set to 'USB_1/LogBAK/'. The 'Free' space is 2575MB and 'Total' is 2861MB. The directory list shows 'Parent Director' selected. The 'Log' area has an 'Export' button.
3. Export logs. Click Export in the Log area. After a while, the system prompts that the export succeeds and generates the file backup_runlog.tar.gz in the directory. Till now, the export operation is finished. CAUTION! <i>If the name of the exported file already exists, a prompt is displayed, indicating whether to overwrite the existing file. Exercise caution with this operation.</i>	 The screenshot shows the 'System Maintenance' window with the 'Backup' tab selected. The 'Path' is set to 'USB_1/LogBAK/'. The 'Free' space is 2573MB and 'Total' is 2861MB. The directory list shows 'Parent Director' and 'backup_runlog' (1.6MB file) listed. The 'Log' area has an 'Export' button.

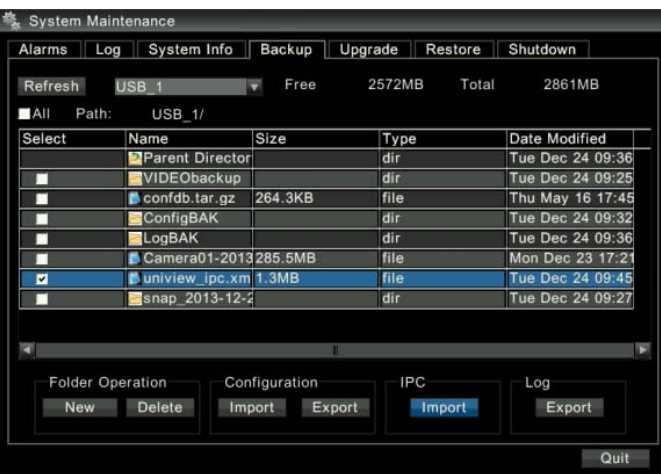
Importing the System Configuration and Database

When unrecoverable faults occur in the system, you can import previous configuration and database information, thereby avoiding the workload that would otherwise be incurred by repeated configuration.

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Maintenance > Backup. The system backup interface is displayed.	
2. Import the system configuration and database. Double-click a directory in the directory list of the USB storage device, and select the file confdb.tar.gz. Click Import in the Configuration area or the Database area, and confirm the import operation. CAUTION! <i>When the configuration file is imported, the system restarts. In this process, ensure that the device is not powered off. If the device is subject to a risk of frequent power-off, prepare a UPS in advance.</i>	

Importing the IPC Configuration File

Only the user **admin** can import the IPC configuration file. The configuration file to be imported must be **uniview_ipc.xml** provided by Uniview. To avoid errors during import check, do not modify import information without prior consent of Uniview.

Steps	Screenshot
1. Right-click anywhere in the preview interface, and then choose Menu > Maintenance > Backup. The system backup interface is displayed.	
2. Import the IPC configuration file. Click Import in the IPC area, and select the XML file to be imported. Then click Yes to confirm the import operation.	

Restoring the Default Configuration

Only the user **admin** can restore the default configuration. This operation restores the default configuration of all parameters except network port and disk array parameters.

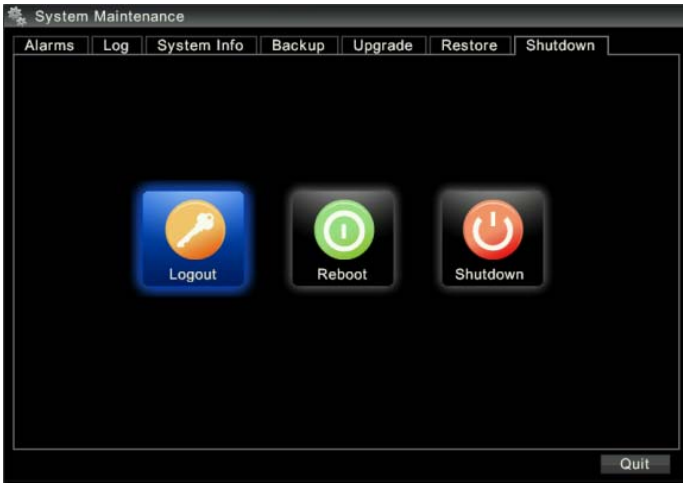
Steps	Screenshot
- Right-click anywhere in the preview interface, and then choose Menu > Configuration > Restore. The default configuration restoration interface is displayed. - Restore the default configuration. Click Restore. A prompt is displayed. Click Yes. The device restarts and restores the default configuration.	

Shutting Down the Device

On the device shutdown interface, users can perform logout, restart, and soft shutdown operations.

Soft shutdown enables you to close running system processes when the device is powered on, so that the device enters the power-saving mode. If the device will not be used for a long time, it is recommended that you cut off the power supply.

You can soft shut down the device by pressing the **POWER ON/OFF** button on the front panel of the remote control or holding the **POWER ON/OFF** button for at least 3 seconds.

Steps	Screenshot
- Right-click anywhere in the preview interface, and then choose Menu > Maintenance > Shutdown. The Shutdown interface is displayed. - Log out the current user. Click Logout and confirm the logout operation to log out the current user. The system restores itself to the preview status before login. - Restart the device. Click Reboot and confirm the operation. The device is restarted. - Shut down the device. Click Shutdown and confirm the operation. The device is shut down.	



CAUTION !

If the device is shut down abnormally (for example, when a power failure occurs), the ongoing configuration may be lost. If the device is being upgraded at this time, the device may fail to be started. Therefore, exercise cautions with the shutdown operation.

12 FAQ

Why do I fail to log in after the network is restored?

Answer: After the network is restored, it takes about 5 to 20 seconds for the system to become normal.

Why does the RAID 5 array fail to be re-built?

Answer: The selected disk does not match the device. Select a disk with the same brand and size as the faulty disk.

Why does the display not respond when I use the remote control to operate the monitor?

Answer: The correct method for using the remote control is as follows:

1. Before operating the remote control, ensure that its battery with sufficient energy has been correctly installed in the remote control.
2. When using the remote control, aim the infrared transmitting end of the remote control at the infrared receiving port of the device (indicated by an IR LED on the front panel of the device). Then perform operations on the remote control. If operations cannot be performed on the remote control, continue with the following step:
3. Press Device on the remote control, enter the remote control ID of the device, and then press OK. 255 is a privileged device code for use during device code check. That is, if you enter 255 during the check, the check will be successful no matter whether the device code is matched. If the device can receive the command from the remote control, the IR LED turns green and makes a sound. Now you can use the remote control to operate the device.

In the whole process, the panel and monitor of the device have no prompt information. If the remote control does not work, repeat the preceding process once again: Press the **Device** button, enter the device code, and then press the **OK** button. If the device cannot receive instructions from the remote control after multiple attempts, check whether the following problems exist:

- the positive and negative polarities of the battery are inversely connected;
- the battery is running out of energy;
- an obstacle exists between the infrared transmitting end of the remote control and the infrared receiving port of the device;
- a fluorescent lamp used nearby affects the remote control.

If the problems do not exist but the device still cannot be operated, contact the local distributor.

Why is there no image but a blank screen displayed after a live viewing connection is successfully built?

Answer:

- Use a mainstream discrete graphics ATIX1550 (or a later version) or NVIDIAGF7300LE (or a later version) with a memory larger than 256 MB. The discrete graphics supports DirectX9.0c.
- Install the latest driver on the discrete graphics and adjust the rate of discrete graphics to the largest value.
- Ensure that the color management part is set to the largest (32) bits.

- In multicast mode, ensure that the network supports multicast.

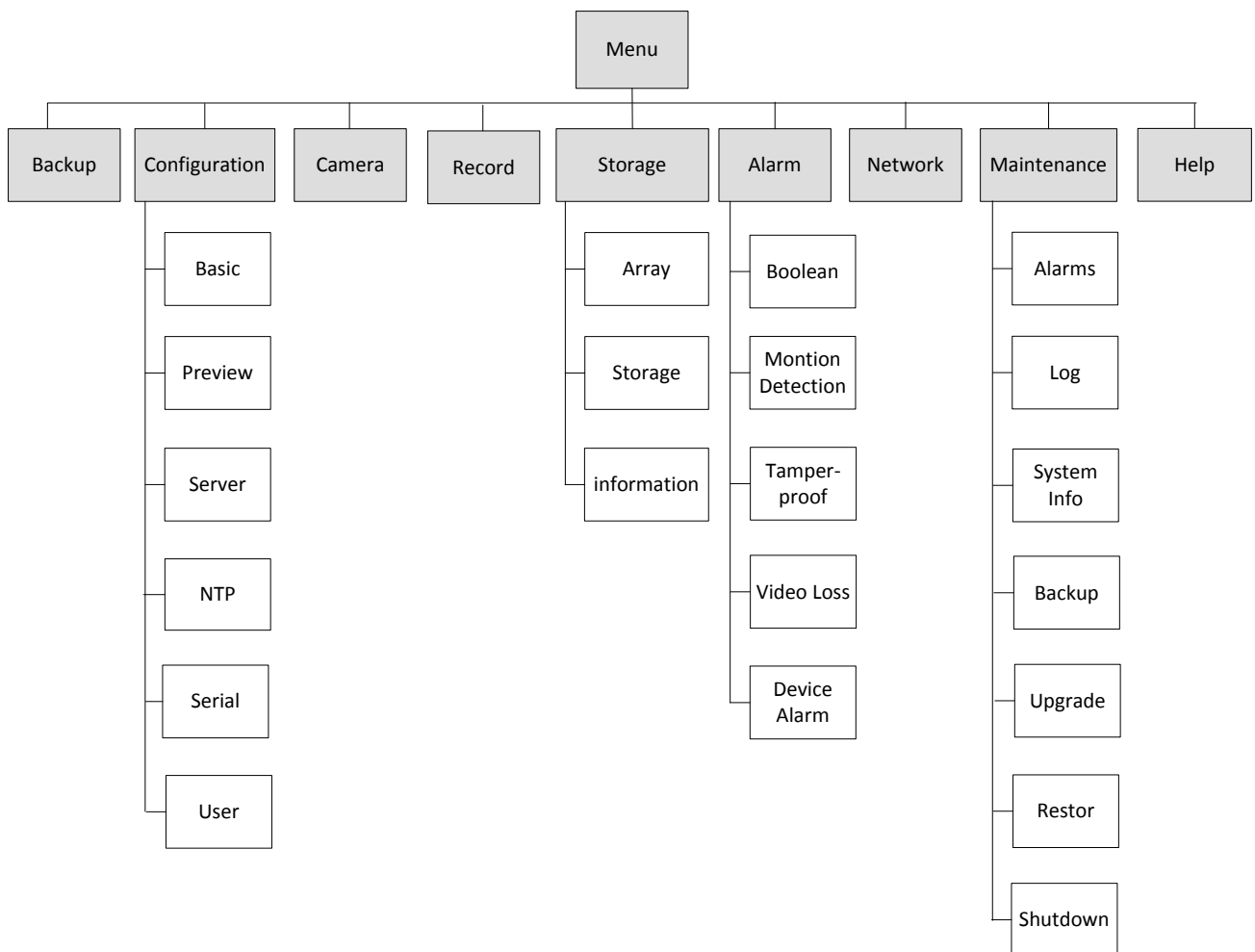
Why cannot the PTZ camera be controlled?

Answer: Do as follows:

- Check whether the PTZ protocol is correct;
- Check whether the PTZ address is correct.

13 Appendix – Menu Structure

Figure 13-1 Menu Structure



14 Appendix – Glossary

Table 14-1 Glossary

Acronym/Abbreviation	Full Spelling	Description
CBR	Constant Bit Rate	-
EC	Encoder	A new-generation network video surveillance media terminal launched by Uniview, integrating the functions of audio/video encoding and compression and data transmission.
eSATA	External Serial ATA	An external extension of the SATA port, which can be used to connect an external SATA device.
HDMI	High-Definition Multimedia Interface	A full digital image and voice transmission port, which can transmit uncompressed audio/video signals.
IPC	IP Camera	A camera that can generate digital video streams and transmit them through a wired or wireless network. It transcends regional limit by performing remote surveillance and recording through a network.
ISP	Internet Service Provider	-
JBOD	Just a Bundle Of Disks	A stack of multiple disks, which provides storage resources for the external network. It does not support any RAID policy. JBOD initially refers to a disk set that has no control software to offer coordination and control functions. Currently, JBOD often refers to a disk enclosure, no matter whether it provides the RAID function.
MTU	Maximum Transmission Unit	-
NTP	Network Timing Protocol	-
NTSC	National Television Systems Committee	A committee subordinate to the Electronic Industries Association (EIA), which develops standards for commercial television broadcasts in the United States, Canada, Japan, and some areas in Central America and South America. In this manual, NTSC refers to an image format, in which the transmission rate is 30 frames per second and the resolution is 525 scan-line mode (horizontal).
OSD	On Screen Display	It includes time OSD and site name OSD.

Acronym/Abbreviation	Full Spelling	Description
PAL	Phase Alternating Line	An image format used for commercial broadcast in most European countries, Australia, and some areas of Central America and South America. In PAL format, the transmission rate is 25 frames per second and the resolution is 625 scan-line mode (horizontal).
PPPoE	Point-to-Point Protocol over Ethernet	-
RAID	Redundant Array of Independent Disks	A type of multi-disk management technology, which provides high-performance storage function featuring high data reliability at a moderate cost.
RAID5	-	A distributed parity redundancy technology of the RAID class. Redundant data in the disk array is distributed among all disks of the array. An array is composed of at least three physical drives.
UNP	Universal Network Passport	-
VBR	Variable Bit Rate	-
VGA	Video Graphics Array	A video transmission standard launched by IMB with PS\2 in 1987. Featuring a high resolution, a high display rate, and rich colors, VGA is widely used in the color display field.

<http://www.uniview.com/en/>
globalsupport@uniview.com